# DEPARTMENT OF THE NAVY FY 1998/1999 BUDGET ESTIMATES



## JUSTIFICATION OF ESTIMATES

# OTHER PROCUREMENT, NAVY BUDGET ACTIVITY 4

FEBRUARY 1997

EXHIBIT P-1

# DEPARTMENT OF THE NAVY FY 1998/FY 1999 PROCUREMENT PROGRAMS

APPROPRIATION: 1810N Other Procurement, Navy

DATE: 02/04/97

		DOLLARS					IILLIONS OF DOLLARS
	IDENT	FY 1998 FY 19		FY 1		FY 1998	FY 1999
LINE NO ITEM NOMENCLATURE	CODE	UNIT COST QUANTITY	COST	QUANTITY	COST	QUANTITY COST	QUANTITY COST
PLIDCET ACTIVITY 04: Ordnenge Support Equipment							
BUDGET ACTIVITY 04: Ordnance Support Equipment Ship Gun System Equipment							
145 5110 Gun Fire Control Equipment	Α		4.0	`	10.2	9.8	8 22.5 U
Ship Missile Systems Equipment	A		4.0	,	10.2	9.0	5 22.5 0
146 5208 MK-92 Fire Control System	Α		0.7	7	1.8	0.9	9 1.0 U
146 5206 MR-92 Fire Control System  147 5227 HARPOON Support Equipment	A		2.8		0.1		
	A		17.1		0.1	0.2	- U
148 5233 TARTAR Support Equipment			6.5		-	-	- U
149 5234 Point Defense Support Equipme 150 5235 Airborne ECM/ECCM	A A		0.5		- 0.3	-	- U
	A		0.5	)	14.7		
151 5236 Engagement Systems Support			-		4.6		
152 5237 NATO Seasparrow	A		-	-			
153 5238 RAM GMLS	A		44.5		44.5		
154 5239 Ship Self Defense System	В		15.3		19.2		
155 5246 AEGIS Support Equipment	A		61.9		32.7		
156 5250 Surface TOMAHAWK Support Equi	A		63.7		83.8		
157 5255 Submarine TOMAHAWK Support Eq	A			1.3		1.4	
158 5260 Vertical Launch Systems	Α		4.9	4.9 12.		7.6	6 7.1 U
FBM Support Equipment							
159 5355 Strategic Platform Support Eq	Α		-		2.1		
160 5358 Strategic Missile Systems Equ	Α		103.9	)	127.4	231.5	5 292.7 U
ASW Support Equipment							
161 5420 SSN Combat Control Systems	Α		12.5		14.4		
162 5431 Submarine ASW Support Equipme	Α		6.3		9.8	3.4	4 3.8 U
163 5449 Surface ASW Support Equipment	Α		6.9	9	5.3	5.9	9 6.1 U
164 5455 ASW Range Support Equipment	Α		5.1	1	2.4	3.6	6 4.5 U
Other Ordnance Support Equipment							
165 5509 Explosive Ordnance Disposal E	В		9.5	5	6.1	7.5	5 8.7 U
166 5518 Unmanned Seaborne Target	Α		4.2	2	-	4.3	3 - U
167 5530 Anti-ship Missile Decoy Syste	Α			2.5		24.7	7 22.4 U
168 5542 Industrial Facilities (Calibr	Α		5.3		4.0	1.4	4 1.1 U
169 5545 Stock Surveillance Equipment	Α		1.4	1	1.4	1.3	3 1.5 U

### UNCLASSIFIED

FY 1998/FY 1999 PROCUREMENT PROGRAMS

# EXHIBIT P-1 DEPARTMENT OF THE NAVY

APPROPRIATION: 1810N Other Procurement, Navy DATE: 02/04/97

		DOLLARS						М	ILLIONS OF I	DOLLARS	
	IDENT	FY 1998	FY 19	996	FY 19	997	FY 19	998	FY 19	999	
LINE NO ITEM NOMENCLATURE	CODE	UNIT COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
Other Expendable Ordnance											
170 5621 Pyrotechnic and Demolition (S	Α			9.4	4	-		-		- L	J
171 5635 Fleet Mine Support Equipment	Α			6.0	)	5.3	3	5.3	3	5.4 L	J
172 5660 Surface Training Device Mods	Α			-		2.4	1	4.8	3	4.5 L	J
173 5661 Submarine Training Device Mod	Α			-		19.3	3	23.0	)	23.3 L	J
174 5665 Industrial Depot Maintenance	Α			-		20.2	2	-		- ر	J
TOTAL Ordnance Support Equipment				396.3	3	468.4	1	539.7	7	692.5	

## Other Procurement, Navy Program and Financing (in Thousands of dollars) SUMMARY

Budget Plan (amounts for PROCUREMENT actions programed) -----Identification code 17-1810-0-1-051 1996 actual 1997 est. 1998 est. 1999 est. Program by activities: Direct program: 

 617,796
 815,611
 771,120
 1,070,756

 781,611
 1,044,672
 925,763
 1,583,978

 192,128
 249,793
 169,250
 255,932

 396,264
 468,410
 539,662
 692,543

 00.0101 Ships support equipment 00.0201 Communications and electronics equipment 00.0301 Aviation support equipment 00.0401 Ordnance support equipment 00.0501 Civil engineering support equipment 46,716 43,943 53,610 81,860 93,966 67,709 56,528 127,373 00.0601 Supply support equipment Personnel and command support equipment 00.0701 115,439 60,850 70,615 183,379 202,217 248,717 302,318 00.0801 Spares and repair parts \_\_\_\_\_ 2.427.299 2.892.355 2.825.500 4.185.375 00.9101 Total direct program 01.0101 Reimbursable program 70,033 42,000 42,000 42,000 \_\_\_\_\_\_\_\_\_\_ 10.0001 Total 2,497,332 2,934,355 2,867,500 4,227,375 Financing: Offsetting collections from: 11.0001 Federal funds(-) -1,918 -42,000 -42,000 -42,000 14.0001 Non-Federal sources(-) -68,115 17.0001 Recovery of prior year obligations Unobligated balance available, start of year: 21.4002 For completion of prior year budget plans 21.4003 Available to finance new budget plans -27,495 -14,20021.4009 Reprograming from/to prior year budget plans -14,000 22.1001 Unobligated balance transferred to other accounts 4,200 Unobligated balance available, end of year: 24.4002 For completion of prior year budget plans 24.4003 Available to finance subsequent year budget plans 14,200 39.0001 Budget authority 2,400,004 2,882,355 2,825,500 4,185,375 \_\_\_\_\_\_ Budget authority: 40.0001 Appropriation 2,455,442 3,067,944 2,825,500 4,185,375 40.3601 Appropriation rescinded (unob bal) -8,828 -10,000 40.7501 Reduction pursuant to P.L. 104-208 (-), 8037(e) -6,439 41.0001 Transferred to other accounts (-) -76,948 -169,150 42.0001 Transferred from other accounts 30,338 43.0001 Appropriation (adjusted) 2,400,004 2,882,355 2,825,500 4,185,375

## Other Procurement, Navy Program and Financing (in Thousands of dollars) SUMMARY

Obligations Identification code 17-1810-0-1-051 1996 actual 1997 est. 1998 est. 1999 est. Program by activities: Direct program: 00.0101 Ships support equipment 596,593 684,724 792,152 953,019 00.0201 Communications and electronics equipment 871,323 1,097,955 899,167 1,533,267 Aviation support equipment 00.0301 176,903 238,046 177,033 240,993 Ordnance support equipment 398,426 404,965 474,729 654,593 00.0401 00.0501 Civil engineering support equipment 65,939 42,457 51,387 73,857 77,535 Supply support equipment 61,691 110,693 00.0601 100,513 193,184 29,539 60,175 65,619 215,400 179,567 216,931 284,702 00.0701 Personnel and command support equipment 00.0801 Spares and repair parts \_\_\_\_\_\_ \_\_\_\_ 00.9101 2,618,281 2,754,788 2,733,265 3,916,743 Total direct program 01.0101 Reimbursable program 50,930 42,000 62,124 42,000 10.0001 Total 2,680,405 2,805,718 2,775,265 3,958,743 Financing: Offsetting collections from: 11.0001 Federal funds(-) -4,591 -42,000 -42,000 -42,000 14.0001 Non-Federal sources(-) -66,891 17.0001 Recovery of prior year obligations -21,397 Unobligated balance available, start of year: 21.4002 For completion of prior year budget plans -673,573 -499,346 -627,983 -720,218 21.4003 Available to finance new budget plans -27,495 -14,20021.4009 Reprograming from/to prior year budget plans 22.1001 Unobligated balance transferred to other accounts 4,200 Unobligated balance available, end of year: 24.4002 For completion of prior year budget plans 499,346 627,983 720,218 988,850 24.4003 Available to finance subsequent year budget plans 14,200 39.0001 Budget authority 2,400,004 2,882,355 2,825,500 4,185,375 \_\_\_\_\_\_ Budget authority: 40.0001 Appropriation 2,455,442 3,067,944 2,825,500 4,185,375 40.3601 Appropriation rescinded (unob bal) -8,828 -10,000 -6,439 40.7501 Reduction pursuant to P.L. 104-208 (-), 8037(e) 41.0001 Transferred to other accounts (-) -76,948 -169,150 42.0001 Transferred from other accounts 30,338 2,400,004 2,882,355 2,825,500 4,185,375 43.0001 Appropriation (adjusted)

## Other Procurement, Navy Program and Financing (in Thousands of dollars) SUMMARY

Obligations

Identification code 17-1810-0-1-051 1996 actual 1997 est. 1998 est. 1999 est.

Relation of obligations to outlays:

71.0001	Obligations incurred	2,608,923	2,763,718	2,733,265	3,916,743
72.1001	Orders on hand, SOY	-30,569	-86,326	-86,326	-86,326
72.4001	Obligated balance, start of year	4,671,807	3,793,123	3,694,860	3,679,591
74.1001	Orders on hand, EOY	86,326	86,326	86,326	86,326
74.4001	Obligated balance, end of year	-3,793,123	-3,694,860	-3,679,591	-4,506,636
77.0001	Adjustments in expired accounts (net)	70,950			
78.0001	Adjustments in unexpired accounts	-21,397			
90.0001	Outlays (net)	3,592,917	2,861,981	2,748,534	3,089,698

# Other Procurement, Navy Object Classification (in Thousands of dollars) SUMMARY

Identification code 17-1810-0-1-051	1996 actual	1997 est.	1998 est.	1999 est.
Direct obligations:				
125.101 Advisory and assistance services Purchases goods/services (inter/intra) Fed accounts	39,841	40,866	36,534	43,623
125.303 Purchases from revolving funds	699,254	677,669	787,453	868,016
126.001 Supplies and materials	655,400	795,655	634,436	959,263
131.001 Equipment	1,223,786	1,240,598	1,274,842	2,045,841
199.001 Total Direct obligations	2,618,281	2,754,788	2,733,265	3,916,743
Reimbursable obligations:				
225.201 Other services with the private sector	33,363			
231.001 Equipment	28,761	50,930	42,000	42,000
299.001 Total Reimbursable obligations	62,124	50,930	42,000	42,000
999.901 Total obligations	2,680,405	2,805,718	2,775,265	3,958,743

# Comparison of FY 1996 Financing as reflected in FY 1997 Budget with 1996 Financing as Shown in the FY 1998 Budget

(\$ in Thousands)

	Financing per	Financing Per	Increase (+) or
	FY 1997 Budget	FY 1998 Budget	Decrease (-)
Program Requirements (Total)	\$2,457,431	\$2,497,332	+\$39,901
Program Requirements (Service Account)	(\$2,421,431)	(\$2,427,299)	(+\$5,868)
Program Requirements (Reimbursable)	\$36,000	\$70,033	+\$34,033
Appropriation (Adjusted)	\$2,399,131	\$2,400,004	+\$873

### **Explanation of Changes in Financing**

The Fiscal Year 1996 program has changed since the presentation of the FY 1997 budget as noted below:

- 1. <u>Program Requirements</u> increased by \$39,901K, \$5,868K for direct service and \$34,033 reflecting increased reimbursable requirements.
- 2. <u>Appropriation (Adjusted)</u>. There has been a minor net increase to the appropriation of \$873K reflecting transfers from other accounts for the Drug Interdiction Program.

# Comparison of FY 1996 program requirements as reflected in the FY 1997 Budget with FY 1996 program requirements as shown in the FY 1998 Budget

## Summary of Requirements (\$ In Thousands)

	Total Program	Total Program	
	Requirements per	Requirements per	Increase (+) or
	FY 1997 Budget	FY 1998 Budget	Decrease (-)
Ship Support Equipment	\$610,985	\$617,796	+\$6,811
Communications & Electronic Equipment	783,792	781,611	-2,181
Aviation Support Equipment	197,039	192,128	-4,911
Ordnance Support Equipment	399,451	396,264	-3,187
Civil Engineering Support Equipment	46,442	46,716	+274
Supply Support Equipment	96,277	93,966	-2,311
Personnel & Command Support Equip	96,196	115,439	+19,243
Spares & Repair Parts	191,249	183,379	-7,870
Total Fiscal Year Program	\$2,421,431	\$2,427,299	+\$5,868

### Explanation by Budget Activity

(\$ In Thousands)

- 1. <u>SHIP SUPPORT EQUIPMENT (+\$6,811)</u> Net mid-year review increases for the Acquisition Center of Excellence (ACE), Other Navigation Equipment, and Hull, Mechanical, & Electrical Items under \$2 Million.
- 2. <u>COMMUNICATIONS & ELECTRONIC EQUIPMENT (-\$2,181)</u> Net reduction used for unfunded Investment/Expense items and the Acquisition Center of Excellence (ACE).
- 3. <u>AVIATION SUPPORT EQUIPMENT (-\$4,911)</u> Net reduction used for unfunded Investment/Expense items and the Acquisition Center of Excellence (ACE).
- 4. <u>ORDNANCE SUPPORT EQUIPMENT (-\$3,187)</u> Net reduction used for unfunded Investment/Expense items and the Acquisition Center of Excellence (ACE).
- 5. <u>CIVIL ENGINEERING SUPPORT (+\$274)</u> Net minor adjustment.
- 6. <u>SUPPLY SUPPORT EQUIPMENT (-\$2,311)</u> Net reduction used for unfunded Investment/Expense items and the Acquisition Center of Excellence (ACE).
- 7. PERSONNEL & COMMAND SUPPORT (+\$19,243) Net increase for unfunded Investment/Expense items.
- 8. <u>SPARES & REPAIR PARTS (-\$7,870)</u> Net reduction used for unfunded Investment/Expense items and the Acquisition Center of Excellence (ACE).

# Comparison of FY 1997 Financing as reflected in FY 1997 Budget with 1997 Financing as Shown in the FY 1998 Budget

(\$ In Thousands)

	Financing per	Financing Per	Increase (+) or
	FY 1997 Budget	FY 1998 Budget	Decrease (-)
Program Requirements (Total)	\$2,750,195	\$2,934,355	+\$184,160
Program Requirements (Service Account)	(2,714,195)	(\$2,892,355)	(+178,160)
Program Requirements (Reimbursable)	\$36,000	\$42,000	+6,000
Appropriation (Adjusted)	\$2,714,195	\$2,882,355)	+\$168,160

### Explanation of Changes in Financing

The Fiscal Year 1996 program has changed since the presentation of the FY 1997 budget as noted below:

1. <u>Program Requirements</u>. There has been a net increase to the appropriation (adjusted) of \$168,160. This net change is comprised of an increase in program requirements (+\$178,160), less rescissions of (-\$10,000).

# Comparison of FY 1997 program requirements as reflected in the FY 1997 Budget with FY 1997 program requirements as shown in the FY 1998 Budget

## Summary of Requirements (\$ in Thousands)

	Total Program	Total Program	
	Requirements per	Requirements per	Increase (+) or
	FY 1997 Budget	FY 1998 Budget	Decrease (-)
Ships Support Equipment	\$868,175	\$815,611	-\$52,564
Communications and Electronic Equip	865,974	1,044,672	+178,698
Aviation Support Equipment	199,105	249,793	+50,688
Ordnance Support Equipment	464,903	468,410	+3,507
Civil Engineering Support Equip	38,057	43,943	+5,886
Supply Support Equipment	69,153	67,709	-1,444
Personnel and Command Support Equip	0	0	0
Spares and Repair Parts	208,828	202,217	-6,611
Total Fiscal Year Program	\$2,714,195	\$2,892,355	+\$178,160

# Explanation by Budget Activity (\$ in Thousands)

- 1. <u>Ships Support Equipment (-\$52,564)</u> Changes reflects FY 1997 Congressional reductions (-\$63,747), Congressional increases (+10,000), and below threshold reprogramming (BTR) actions (-\$1,183).
- 2. <u>Communications and Electronics Equipment (+\$178,698)</u> Changes reflects FY 1997 Congressional reductions (-\$28,253), Congressional increases(+\$204,674), and below threshold reprogramming (BTR) actions (+\$2,277).
- 3. <u>Aviation Support Equipment (+\$50,688)</u> Changes reflects FY 1997 Congressional reductions (-\$8,079), Congressional increases(+\$166,558), and transfers to the Air Force (-\$107,791).
- 4.) <u>Ordnance Support Equipment (+\$3,507</u>) Changes reflects FY 1997 Congressional reductions (-\$17,033), Congressional increases(+\$22,000), and below threshold reprogramming (BTR) actions (-\$1,460).
- 5. <u>Civil Engineering Support Equipment (+\$5,886</u>) Changes reflects FY 1997 Congressional reductions (-\$931) and Congressional increases(+\$6,817).
- 6. Supply Support Equipment (-\$1,444) Changes reflects FY 1997 Congressional reductions (-\$1,444).
- 8. <u>Spare and Repair Parts (-\$6,611)</u> Changes reflects FY 1997 Congressional reductions (-\$4,611) and below threshold reprogramming (BTR) actions (-\$2,000).

#### DATE **BUDGET ITEM JUSTIFICATION SHEET FEBRUARY 1997** APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATURE OPN/BA-4 ORDNANCE SUPPORT EQUIPMENT GUN FIRE CONTROL EQUIPMENT (14UK/5110) FY 96 FY 98 FY 99 FY 00 FY 01 FY 02 FY 97 FY 03 QUANTITY COST (In Millions) 4.0 10.2 22.5 35.7 18.6 18.7 19.4

DESCRIPTION: (U) THIS PROGRAM PROVIDES FOR PROCUREMENT OF EQUIPMENT, MATERIALS AND ORDNANCE ALTERATIONS (ORDALTS) TO IMPROVE COMBAT EFFECTIVENESS OF AND MAINTAIN LOGISTIC SUPPORTABILITY OF GUN FIRE CONTROL SYSTEMS (GFCS) INSTALLED ON 71 SHIPS (65 MK 86; 6 MK 160) AND 9 SHORE INSTALLATIONS (8 MK 86; 1 MK 160).

UK009 SWITCHBOARD ORDALTS- PROCURE ORDALTS FOR GFCS MK 86 SWITCHBOARDS TO IMPROVE WEAPON AND COMBAT SYSTEM DATA SWITCHING CAPABILITY: PROVIDE CONCURRENT CHANGES WITH OTHER ORDALTS: AND PROVIDE TECHNICAL DOCUMENTATION UPGRADES REQUIRED BY INTERFACING SYSTEM/EQUIPMENT ORDALTS.

UK024 RMA (RELIABILITY, MAINTAINABILITY AND AVAILABILITY) MK 86 PROCURE PRODUCT IMPROVEMENT ORDALTS FOR GFCS MK 86 TO CORRECT PROBLEMS REPORTED BY FLEET UNITS: UPGRADE UNRELIABLE COMPONENTS AND REPLACE OBSOLETE COMPONENTS AND PARTS NO LONGER IN PRODUCTION. INSTALLATIONS TO BE IN SHIP CLASSES WITH MK86 CONFIGURATION. MK 86 ORDALTS WERE PROCURED IN PRIOR YEARS AND ARE BEING INSTALLED IN BLOCKS TO REDUCE TOTAL INSTALLATION COSTS.

UK039 NIGHT VISION DEVICES - PROCURES NEW NIGHT VISION DEVICES (NVD) FOR SHIPS AND SHORE SITES. PROVIDES REPAIR OR REPLACEMENT OF NVD AND NVD TEST EQUIPMENTS.

UK040 AN/SPQ-9B RADAR MK 86 - PROCURE AN/SPQ-9 IMPROVEMENT ORDALTS (AN/SPQ-9B RADAR) TO ADD ANTI-SHIP MISSILE DEFENSE (ASMD) CAPABILITY WHICH INCREASES THE RADAR CAPABILITY TO DETECT AND TRACK LOW-FLYING, VERY SMALL RADAR CROSS-SECTION TARGETS IN NATURAL AND MAN-MADE CLUTTER. INSTALLATIONS TO BE PERFORMED BY AIT IN THE FOLLOWING SHIP CLASSES: QTY=12 DD-963: QTY=5 LHA-1: QTY=4 DDG-993: QTY=27 CG-47: AND QTY=1 TRAINER.

UK041 AN/SPQ-9B NON-RECURRING CONTRACTOR PRODUCTION SUPPORT SUPPORTS AN/SPQ-9B RADAR CONTRACTOR TRAINING DOCUMENTATION/SUPPORT, PRODUCTION DRAWINGS AND DATA EFFORTS.

UK830 AN/SPQ-9B PRODUCTION SUPPORT - SUPPORTS AN/SPQ-9B RADAR PROGRAM AND CONTRACTOR ASSOCIATED AREAS.

UK5IN/UK6IN - INSTALLATION OF EQUIPMENTS - PROVIDES FUNDING TO INSTALL ORDALTS, FIELD CHANGES AND OTHER ALTERATIONS IN SHIPS (FLEET MODERNIZATION PROGRAM - FMP) AND SHORE SITES (NON-FLEET MODERNIZATION PROGRAM - NON-FMP).

#### UK900--CONSULTING SERVICES

PROVIDE EXPERTISE TO ENGINEERING TECHNICAL SUPPORT SERVICES ON EQUIPMENT. INCLUDING CONSULTATION AND RECOMMENDATION ON PRODUCTION ANALYSIS OF PROBLEMS WITH EQUIPMENT AND INTERFACES. PERFORM TECHNICAL REVIEWS AND SUITABILITY STUDY OF CURRENT SYSTEMS.

#### UNCLASSIFIED DATE **COST ANALYSIS FEBRUARY 1997** APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATURE OPN/BA-4 ORDNANCE SUPPORT EQUIPMENT GUN FIRE CONTROL EQUIPMENT (14UK/5110) TOTAL COST IN THOUSANDS OF DOLLARS **ELEMENT OF COST IDENT** FY 96 FY 97 FY 98 FY 99 CODE QTY TOTAL COST QTY TOTAL COST QTY TOTAL COST QTY TOTAL COST SURFACE SHIPS (N-86) UK009 SWITCHBOARD O/A'S MK 86 Α 48 48 47 44 UK024 RMA MK 86 Α 1,221 2,049 1,359 1,160 UK039 NIGHT VISION DEVICES Α 509 506 471 535 6 UK040 AN/SPQ-9B RADAR MK 86 Α 0 5,870 3,263 16,975 UK041 AN/SPQ-9B N/R CTR. PROD. SPT 0 0 Α 0 1,547 UK830 AN/SPQ-9B PROD. SPT Α 0 533 1.700 1,625 UK5IN INSTALLATION OF EQUIPMENT (FMP) Α 1,916 1,016 528 1,146 UK6IN INSTALLATION OF EQUIPMENT (NON-FMP) Α 121 0 428 0 UKDSA DESIGN SUPPORT 812 Α 0 0 194 **UK900 CONSULTING SERVICES** Α 223 215 215 214 TOTAL 4.034 10.237 9.753 22.514

P-1 SHOPPING LIST

UNCLASSIFIED	DATE
BUDGET PROCUREMENT HISTORY AND PLANNING	FEBRUARY 1997

APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATURE OPN/BA-4 ORDNANCE SUPPORT EQUIPMENT GUN FIRE CONTROL EQUIPMENT (14UK/5110) CONTRACT DATE OF **SPECS SPECS** IF YES, WHEN LINE ITEM/ CONTRACTOR METHOD CONTRACTED AWARD **FIRST AVAILABLE** REV FISCAL YEAR AND LOCATION AND TYPE  $\mathsf{BY}$ DATE DELIVERY QUANTITY UNIT COST NOW REQ'D AVAILABLE UK040 FY 1997 NORDEN SYSTEMS, INC. FPI NAVSEA Mar 97 May 98 2 2,935,000 YES NO FY 1998 NORDEN SYSTEMS, INC. FPI NAVSEA YES NO Jan 98 Mar 99 3,263,000 1 FPI NAVSEA YES NO FY 1999 NORDEN SYSTEMS, INC. Mar 00 6 2,829,000 Jan 99

REMARKS

MODIFICATION TITLE: MK86; GUN FIRE CONTROL EQUIPMENT ORDALT ALTERATIONS

The Inventory Objective for this Item is 1569.

MODELS OF SYSTEMS AFFECTED:

GFCS MK 86 Mods 9, 10, 12

DESCRIPTION/JUSTIFICATION:

Product Capability, Safety, and Survivability and RMA Improvements

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONE:

Continuous Improvements to GFCS MK 86

	FY-96						·										то			
FINANCIAL PLAN: (\$in Millions)	& PRIOR		FY-97	<u>.</u>	_FY-98	3	_FY-99		_FY-0	<u>0</u>	FY-01	L	_FY-02	2_	_FY-0	<u>3</u>	COMPL	<u>ETE</u>	TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT (UK024)																				
Kit Quantity																				
Installation Kits	1234	15.2			10	0.5	25	1.2	25	1.2	25	1.2	25	1.2	25	1.3	200	9.6	1569	31.4
Installation Kit Nonrecurring		1.6		2.1		0.9						1.6								6.2
Equipment																				
Equipment Nonrecurring																				
Engineering Change Orders																				
Unit Cost Data for Equipment		0.012				0.05		0.05		0.05		0.05		0.05		0.05		0.05		0.4
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY96 & Prior Equipment (1206 kits)	1175	4.0	37	1.0	0	0.0	22	0.6	0	0.0									1234	5.6
FY97 Equipment (0 kits)																			0	0.0
FY98 Equipment (10 kits)							10	0.6											10	0.6
FY99 Equipment (25 kits)									25	0.5									25	0.5
FY00 Equipment (25 kits)											25	0.5							25	0.5
FY01 Equipment (0 kits)													25	0.5					25	0.5
FY02 Equipment (25 kits)																	25	0.4	25	0.4
FY03 Equipment (25 kits)																	25	0.4	25	0.4
To Complete (200 kits)																	200	9.6	200	9.6
Total Installation Cost	1175	4.0	37	1.0	0	0.0	32	1.2	25	0.5	25	0.5	25	0.5	0	0.0	250	10.4	1569	18.0
Total Cost		20.8		3.1		1.4		2.4		1.7		3.3		1.7		1.3		20.0		54.3
METHOD OF IMPLEMENTATION:	ALTERATI		LLATION 1																	
CONTRACT DATE:	Prior Year:				udget Yea				Budget Yea											
PRODUCTION DELIVERY DATE:	Prior Year:	: N/A		В	udget Yea	r 1: N/A		Е	Budget Yea	r 2: N/A										
																	TO			
	FY-95		FY-96		FY-97		FY-98		FY-99		FY-00		FY-01		FY-01		COMP.	TOTA	L	
INSTALLATION SCHEDULE: INPUT	1 2 3 4		1 2 3	4	1 2 3	4	1 2 3 4	1	1 2 3	4	1 2 3	4	1 2 3	4	1 2 3	4				
	Note: Qua	antities abo	ove reflect	number	of ORDAI	T kit set	s. Individua	I ORDAL	Ts are bei	ng										

Note: Quantities above reflect number of ORDALT kit sets. Individual ORDALTs are being procured, packaged, and installed in sets to lower overall costs.

OUTPUT

- MK86 BASELINE ORDALTS: 13

- MK86 BLOCK 1 UPGRADE ORDALTS: 4

- MK86 BLOCK 2 UPGRADE ORDALTS: 5

- MK86 RMA-1 UPGRADE ORDALTS: 3

- MK86 RMA-2 UPGRADE ORDALTS: 3

FY96 & Prior

FY97 - 00 FY01 - 03

P-1 SHOPPING LIST

ITEM NO. 145 PAGE NO. 4 Exhibit P-3A

#### UNCLASSIFIED

MODIFICATION TITLE: AN/SPQ-9B Radar Improvement to the MK 86 Gun Fire Control System (GFCS) Mod 13

MODELS OF SYSTEMS AFFECTED: GFCS Mod 10 The Inventory Objective for this Item is 47.

DESCRIPTION/JUSTIFICATION: Adds Anti-Ship Missile Defense mode; detects & tracks low-flying, extremely small radar cross section targets in clutter.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONE: MS IV/III 10/94, CA 10/13/94 CDR 7/95, DT/OT 11/97, MS III 2/99.

DEVELOPMENT STATUS/MAJOR DEVELOPME	NT MILESTONE: FY-96			MS IV/II 10/9	4, CA 10	)/13/94 CDF	R 7/95,	DT/OT 11	/97, N	IS III 2/99							то				
FINANCIAL PLAN: (\$ in Millions)	& PRIOR	FY-9	97	_FY-98		FY-99	)	_FY-	-00		FY-01		FY-0	12	FY-03		COMPI	LETE		TOTAL	
(+,	Qty \$	Qty	\$	Qty	\$	Qty	\$	Qty			Qty	\$	Qty	 \$	Qty	\$	Qty	\$		Qty	- \$
RDT&E PROCUREMENT (UK040)	2 34.1	,	9.9	,	3.8	,	2.7	-		.7	,	1.8	,	1.8	,	1.9	,	0.0		2	57.7
Kit Quantity Installation Kits		2		1		6		9			2		4		4		19			47	
Installation Kit Nonrecurring Equipment		2	5.9	1	3.3	6	17.0	9	27	.5	2	6.8	4	13.6	4	14.2	19	55.4		47	147.5
Equipment Nonrecurring Engineering Change Orders																					
Unit Cost Data for Equipment			2.9 0.7		3.3 3.5		2.8			.1		3.4		3.4		3.6 0.5		3.1			3.1
Other	0.3		0.7		3.5		1.8		1	.9		2.0		1.3		0.5		4.0			12.1
Interim Contractor Support Installation of Hardware																					
FY97 Equipment (2 kits)*				2	1.1															2	1.2
FY98 Equipment (1 kits)						1	0.8													1	0.8
FY99 Equipment (6 kits)								6	4	.1										6	4.1
FY00 Equipment (9 kits)											9	6.0								9	6.0
FY01 Equipment (3 kits)													2	1.6						2	1.6
FY02 Equipment (4 kits)															4	2.8				4	2.8
FY03 Equipment (4 kits)																	4	2.2		4	2.2
To Complete (19 kits)											9				4		19	13.2		19 47	13.2
Total Installation Cost	0.0	0	0.0 6.6	2	1.1 7.9	1	0.8 19.6		33	.1	9	6.0 14.8	2	1.6 16.5	4	2.8	23	15.4 74.8		47	31.8 191.5
Total Cost * One FY 1997 kit is a non-FMP install.	0.3		6.6		7.9		19.6		33	.5		14.8		16.5		17.55		74.8			191.5
METHOD OF IMPLEMENTATION:	AI TERATION	INSTAI	ΔΟΜΙΝ	ISTRATIVE LE	ADTIME	6 MONTH	S		PR∩I	UCTION	LEADT	IMF· 14	MONTHS								
CONTRACT DATE:	Prior Year: N/			Current Year:		MARCH 1				et Year 1:		AN 1998			Budget Ye	ear 2:	JAN 19	99			
PRODUCTION DELIVERY DATE:	Prior Year: N			Current Year:		MAY 1997			-	et Year 1:		ARCH 19	99		Budget Ye		MARCH		то		
	FY-96	i		FY-97		FY-98		FY-99		FY-	-00		FY-01		FY-02		FY-03	3 (	COMP.	т	OTAL
INSTALLATION SCHEDULE:	1 2 3	4		1 2 3 4	1	2 3 4		1 2 3 4		1 2 3	3 4	1	2 3 4		1 2 3 4		1 2 3	4			
INPUT																					
FY96 & PRIOR																					0
FY97																					0
FY98					1																1
FY99 FY00								1 1 0	0	0 2	2 2										2 6
FY01										0 2	2 2	2	2 2 3								9
FY02													. 2 2 3		1 0 1	0					2
FY03																	1 1	1 1			4
TO COMPLETE																			23		23
TOTAL																					47
ОИТРИТ																					
FY96 & PRIOR																					0
FY97																					0
FY98 FY99						1		0 1 1	0												1 2
FY99 FY00								0 1 1	U	0 0	2 2										4
FY01										0 0		2	2 2 2								8
FY02												2			3 1 0	) 1					5
FY03																	0 1	1 1			3
TO COMPLETE																			24		24
TOTAL																					47

 P-1 SHOPPING LIST
 Exhibit P-3A

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 UNCLASSIFIED

#### **UNCLASSIFIED** CLASSIFICATION:

		BUDGET	TITEM JUSTIF	ICATION SHE	ET		DATE:				
		February 1	February 1997								
APPROPRIATION/BU	DGET ACTIVITY	Y			P-1 ITEM	P-1 ITEM NOMENCLATURE					
OPN/BA-4 ORDNA	ANCE SUPPO	RT EQUIPME	NT		MK 92 F	IRE CONTROL	SYSTEM 84UU	BLI # 520800			
	1996	1997	1998	1999	2000	2001	2002	2003			
QUANTITY											
COST (In Millions)	\$0.7	\$1.8	\$0.9	\$1.0	\$1.1	\$1.1	\$1.2	\$1.2			
Hardware is procured a in conjunction with rout  UUSIN - FMP Install - Fu	ine repair actions	s planned in the fi	scal years followi	ng procurement.	ccomplished by	either Alteration Ins	tallation Teams (AIT) o	)r			

P-1 SHOPPING LIST

CLASSIFICATION:

DD Form 2454, JUN 86

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1

		WEAPO	N SYS	TEM COST ANAL	YSIS				DATE	:
		P-5								February 1997
APPRO	PRIATION/BUDGET ACTIVITY			P-1 ITEM NOMEN	ICLAT	JRE/SUBHEAD				
OPN/BA	A-4 ORDNANCE SUPPORT EQUIPMENT			MK 92 FIRE CO	NTRO	L SYSTEM / 84	UU			
					TOTA	L COST IN THOU	JSAND	S OF DOLLARS		
COST	ELEMENT OF COST	IDENT		FY 1996		FY 1997		FY 1998		FY 1999
OODL		JOBE	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
UU001	FLEET SUPPORT ORDALTS	A		0	12	1,841	12	792	12	867
UU5IN	FMP INSTALLATION	A		718		0		114		118
	TOTAL			718		1,841		906		985

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CLASSIFICATION:

#### **UNCLASSIFIED**

CLASSIFICATION

			WEAPON SYS	STEM COST ANA	LYSIS					DATE:	
			P-5A							February 1997	
APPROPRIAT	ION/BUDGET ACTIVITY	•			P-1 ITEM NON	IENCLATURE			SUBHEAD		•
OPN/BA-	4 ORDNANCE EQUIPMENT				MK 92 FIR	E CONTROI	SYSTEM		84UU		
COST	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
								(000)			
UU001	FLEET SUPPORT ORDA	ALTS									
	FY 95 MOD 6 BLK 5 FY 95 MOD 6 BLK 5 FY 97 MOD 6 BLK 6 FY 98 MOD 6 BLK 7 FY 99 MOD 6 BLK 8	LORAL LOCKHEED LOCKHEED LOCKHEED	SS/FFP SS/FFP SS/FFP SS/FFP	NAVSEA NAVSEA NAVSEA NAVSEA	01/95 01/95 01/97 01/98 01/99	01/96 01/96 01/98 01/99 01/00	12 * 12 12 12	312.0 1,913.0 153.4 66.0 72.2	YES YES	NO NO NO	
REMARKS	<u> </u>		I I			l			<u> </u>	1	I

\* Non-Recurring Engineering

P-1 SHOPPING LIST PAGE NO. ITEM NO.

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3

CLASSIFICATION:

CLASSIFICATION: UNCLASSIFIED INDIVIDUAL MODIFICATION MODIFICATION TITLE: UU001 FLEET SUPPORT ORDALTS: MK 92 FIRE CONTROL SYSTEM MODELS OF SYSTEM AFFECTED: FIRE CONTROL SYSTEM MK 92 MOD 6 CORRECTS SAFETY, ENVIRONMENTAL OR OBSOLESCENCE DEFICIENCIES TO MAINTAIN COMBAT READINESS DESCRIPTION/JUSTIFICATION: DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: ORDALT DEFICIENCY CORRECTION PROGRAM TO TO COMP COMP FY 96 FY 97 \$M FY 98 \$M FY 99 \$M FY 00 \$M FY 01 \$M FY 02 \$M FY 03 \$M TOTAL TOTAL QTY & PRIOR QTY FY 97 QTY FY 98 QTY FY 99 QTY FY 00 QTY FY 01 QTY OTY FY 03 FY 02 QTY COST QTY COST FINANCIAL PLAN (IN MILLIONS) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0.00 RDT&E **PROCUREMENT** 12 12 0.79 0.87 12 12 6.00 1.84 12 0.94 12 1.02 12 1.06 12 1.11 96 13.64 INSTALLATION KITS 12 4.10 12 12 0.79 12 0.87 12 1.06 12 1.11 96 11.74 1.84 0.94 12 1.02 12 INSTALLATION KITS NONRECURRING 1.90 1.90 **EQUIPMENT** 0.00 **EQUIPMENT NONRECURRING** 0.00 ENGINEERING CHANGE ORDERS 0.00 DATA 0.00 TRAINING EQUIPMENT 0.00 SUPPORT EQUIPMENT 0.00 OTHER 0.00 INTERIM CONTRACTOR SUPPORT 0.00 INSTALLATION OF HARDWARE FY 96 AND PRIOR EQUIPMENT (12KITS) 12 12 0.72 0.72 FY 97 Equipment (12 Kits) 0.11 12 0.11 FY 98 Equipment (12 kits) 12 0.12 12 0.12 FY 99 Equipment (12 kits) 12 0.12 12 0.12 12 0.12 FY 00 Equipment (12 kits) 12 0.12 FY 01 Equipment (12 kits) 12 0.12 12 0.12 FY 02 Equipment (12 kits) 12 0.12 12 0.12 0.12 TO COMPLETE (12 Kits) 12 0.12 TOTAL INSTALLATION COST 0.72 0.00 0.11 0.12 0.12 0.12 0.12 0.12 0.12 96 1.55 TOTAL PROCUREMENT COST 6.00 1.84 0.79 0.87 0.94 1.02 1.06 1.11 0.00 TOTAL COST 6.72 1.84 0.90 0.99 1.06 1.14 1.18 1.23 0.12 METHOD OF IMPLEMENTATION: AIT ADMINISTRATIVE LEADTIME: 1-12 MONTHS PRODUCTION LEADTIME: 12 MONTHS CONTRACT DATE: PRIOR YEAR: N/A CURRENT YEAR: 1/97 **BUDGET YEAR: 1/98** BUDGET YEAR 2: 1/99 PRODUCTION DELIVER DATE: PRIOR YEAR: N/A CURRENT YEAR: 1/98 BUDGET YEAR: 1/99 BUDGET YEAR 2: 1/00 INSTALLATION SCHEDULE: INPUT FY 1996 FY 1997 FY 1998 FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 TC **TOTAL** 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 FY 96 AND PRIOR 12 12 FY 97 12 12 FY 98 12 12 FY 99 12 FY 00 12 FY 01 12 FY 02 12 12 12 12 FY 03 TOTAL INPUT 96 TOTAL OUTPUT FY 1996 FY 1997 FY 1998 FY 1999 FY 2000 FY 2001 FY2002 FY 2003 TC 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 FY 96 AND PRIOR 12 12 FY 97 12 12 FY 98 12 12 12 FY 99 FY 00 12 12 FY 01 12 FY 02 12 FY 03 12 TOTAL OUTPUT 96

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CLASSIFICATION:

## **UNCLASSIFIED**

CLASSIFICATION:	UNCLAS								
	REQUIREMENTS ST	rudy - not-inst	ALLED NONCON	SUMABLES P-2	3B			February 1997	
APPROPRIATION/BUDGET ACTIVITY				P-1 ITEM NOMENCLATUR	RE				
OPN/BA-4 ORDNANCE	SUPPORT EQU	JIPMENT		MK 92 FIRE	CONTROL SY	STEM UU00	1		
ITEM/PROJECT UNIT	TOTAL IO / REQUIREMENT	QUANTITY ON HAND & NOT IN USE	QUANTITY IN USE	QUANTITY DUE IN WITH FY 95 & PRIOR FUNDS	QUANTITY DUE IN WITH FY 96 PROGRAM FUNDS	PLANNED BUDGET YEAR PROCUREMENT FY 97	PLANNED BUDGET YEAR PROCUREMENT FY 98	BALANCE	PHASING RATIONALE
#1 MOD 6 BLK 5	12	0	12	0	0	0	0	0	
#2 MOD 6 BLK 6	12	0	0	0	0	12	0	0	
#3 MOD 6 BLK 7	12	0	0	0	0	0	12	0	
ITEM #1 MOD 6 BLK 5	ITEM #2 MOD 6 BLK		ITEM#3 MOD 6 E						
FFG 50, 51, 36, 57, 48, 47, 54, 53	FFG 50, 51, 36, 57, 48,		FFG 50, 51, 36, 57,	48, 47, 54, 53					
55, 52, 59, 61,	55, 52, 59, 61,		55, 52, 59, 61						
TOTAL 12	TOTAL 12		TOTAL 12						
								<u> </u>	

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	BUD	GET ITEM J	USTIFICATI	ON SHEET			DATE:	
			P-40				Feb	1997
APPROPRIATION/BUDG	GET ACTIVITY				P-1 ITEM NOM	ENCLATURE		
<b>Other Procuremer</b>	nt, Navy				HARPO	ON Suppor	t Equipmen	t (J4U0)
<b>BA-4: Ordnance S</b>	upport Equ	ipment				(522700) (P	EO(CU))	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
COST								
(In Millions)	\$2.8	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

The HARPOON Weapon System (HWS) provides a ship, aircraft and submarine-launched all-weather, over-the-horizon, anti-ship cruise missile system effective against enemy destroyers, cruisers, surfaced submarines, patrol craft and other enemy shipping (e.g., merchant, surveillance, etc.). The missile uses altitude reference mid-course guidance with an active radar seeker for target acquisition and terminal guidance. The following platforms are configured to provide HARPOON command and control functions to launch the HARPOON missile:

Ship Launch Platforms: DD-963, CGN, FFG-7, CG-47, DDG-51 and DDG-993

Air Launch Platforms: P-3, A-6, F/A-18 and S-3

Submarine Launch Platforms: 637 and 688 CLASSES

OPN funds are used for procurement of items peculiar to ship and submarine HARPOON Command and Launch Control Systems. Funds for procurement of air launch platforms, new construction and the missile are provided by other appropriations (APN/SCN/WPN). OPN procurement is structured to be compatible with projected Ordnance Alteration (ORDALT) installation schedules to optimize fleet introduction of HARPOON weapon improvements.

The HWS was granted Approval for Service Use (ASU) per CNO ltr Ser 354H/C 394280 of 19 February 1981. The HARPOON Ship Command and Launch Control System (HSCLCS) AN/SWG-1A(V) was granted Approval for Full Rate Production (AFRP) per ASN(S&L) memo of 12 May 1989.

The OPN funding will support a series of ORDALTS to improve HARPOON readiness in the fleet. Computer program improvements to the HSCLCS AN/SWG-1A(V) will correct deficiencies identified in trouble reports, incorporate operational capabilities recommended by the fleet and further enhance operational safety and reliability.

Funding in FY 1997 and FY 1998 provide for the installation of Shipboard HSCLCS ORDALT Kits procured in previous fiscal years. These Shipboard ORDALTS will be installed as part of the Fleet Modernization Program (FMP).

Budget reflects the transfer of design services into the appropriate equipment P-1 line item beginning in FY 1998.

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CLASSIFICATION:

DD Form 2454, JUN 86 ITEM NO. 147 PAGE NO. 1

	WE	APONS S	SYSTEN P-	I COST ANALY	SIS				DATE:	Feb 1997
Other	PRIATION/BUDGET ACTIVITY  Procurement, Navy  Ordnance Support Equipment			P-1 ITEM NOMENO			nort F	quipment (J4U		
DA-4.	Ordinance Support Equipment					COST IN THOUSAN	_		<u> </u>	
COST	ELEMENT OF COST	IDENT CODE		FY 1996		FY 1997		FY 1998		FY 1999
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
U0004	ORDALTS HSCLCS-1A Computer Program Upgrade ORDALT Kits Object Oriented Analysis (OOA) and Design (OOD) and Software Coding and Testing Production Support	A	58	2,461 (110) (1,690) (661)		0		0		C
U0910 U0920	Installation of Equipment (FMP)  Design Service Agent (FMP Install)			376 0		96 0		207		(
				2,837		96		243		

DD FORM 2446, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

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MODIF	-	NSTALLAT HIBIT P-3N Illars in Mil	)	RY			DATE Feb 1997	7	
APPROPRIATION/BUDGET ACTIVITY: Other Procurement, Navy BA-4: Ordnance Support Equ			,			OMENCLA POON Su		uipment (	J4U0)
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
HARPOON SUPPORT EQUIPMENT ORDALT KITS	0.4	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.7
TOTAL	0.4	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.7

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CLASSIFICATION:

CLASSIFICATION: UNCLASSIFIED P3A INDIVIDUAL MODIFICATION MODIFICATION TITLE: WEAPON SYSTEM ORDALTS MODELS OF SYSTEM AFFECTED: CGs, CGNs, DDs, DDGs, FFGs DESCRIPTION/JUSTIFICATION: Weapon System ORDALT Kits include Launcher Relay Assembly (LRA) Cable Corrosion, HSCLCS-1A Embedded Trainer (HET), HSCLCS-1A Selective Engagement, HSCLCS-1A Graphic Display Unit/Graphic Data Processor (GDU/GDP) Enhancement, HSCLCS-1A ORDALTS, HARPOON Guided Missile Simulator (HGMS) and HOTTS Retrofit ORDALTS will enhance fleet readiness, correct system deficiencies and further enhance operational safety and reliability. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FY 1996 & Prior FY 1997 FY 1998 FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 TC **TOTAL** QTY \$ FINANCIAL PLAN (IN MILLIONS) RDT&E 0.0 **PROCUREMENT** INSTALLATION KITS 1071 31.9 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0.0 1071 31.9 **INSTALLATION KITS - UNIT COST** 0.030 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 INSTALLATION KITS NONRECURRING 27.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 27.7 **EQUIPMENT** 0.0 **EQUIPMENT NONRECURRING** 0.0 **ENGINEERING CHANGE ORDERS** 0.0 DATA 0.0 TRAINING EQUIPMENT 0.0 SUPPORT EQUIPMENT 0.0 OTHER (Production Support) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.2 INTERIM CONTRACTOR SUPPORT 0.0 INSTALLATION OF HARDWARE FY 1996 EQUIPMENT & PRIOR 971 3.6 42 0.1 58 0.2 1071 3.9 **FY 1997 EQUIPMENT** 0 0.0 **FY 1998 EQUIPMENT** 0 0.0 **FY 1999 EQUIPMENT** 0 0.0 **FY 2000 EQUIPMENT** 0 0.0 FY 2001 EQUIPMENT 0 0.0 **FY 2002 EQUIPMENT** 0 0.0 **FY 2003 EQUIPMENT** 0 0.0 TO COMPLETE 0 0.0 0 0.0 TOTAL INSTALLATION COST 971 3.6 0.1 58 0.2 0.0 0 0.0 0.0 0.0 0.0 1071 3.9 0.1 0.0 TOTAL PROCUREMENT COST 1071 70.4 0 0 0.2 0 0.0 0 0.0 0 0.0 0 0 0.0 0 0.0 1071 70.7 TOTAL COST 70.4 0.1 0.2 0.0 0.0 0.0 0.0 0.0 0.0 70.7 METHOD OF IMPLEMENTATION: Alteration Installation Team (AIT) ADMINISTRATIVE LEADTIME: PRODUCTION LEADTIME: CONTRACT DATE: FY 1997: FY 1998: N/A N/A FY 1999: N/A PRODUCTION DELIVER DATE: FY 1997: N/A FY 1998: N/A FY 1999: N/A The total program quantity of 1,071 units reflects the inventory objective for this item.

P-3A

P3A (Continued)	·								INDI	VIDU	IAL N	IODI	FICA	TION	(Cor	ntinu	ed)														
MODIFICATION TIT	LE:	WE	APO	N SY	SIE	W OR	DAL	18																							
INSTALLATION S	CHEDULE	:																													
INPUT ===>	FY 1996		FY '	1997			FY 1	998			FY '	1999			FY 2	2000			FY 2	2001			FY 2	002			FY 2	2003		TC	
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		TOTAL
FY 1996 & Prior	971	0	20	10	12	18	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1071
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
																													TAL IN		1071
OUTPUT ==>	FY 1996			<u> 1997</u>			<u>FY 1</u>					<u> 1999</u>			<u>FY 2</u>					<u> 2001</u>			FY 2				<u>FY 2</u>			TC	
	& Prior	1	2	3	4	1	2	3_	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		TOTAL
FY 1996 & Prior	971	0	20	10	12	18	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1071
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	U	0	0	0	0	0	0	0	0	0	0	0	0	0	U	0	0	0	0	0	0	0	U	0	0	0	U	U	0	0	0
Installation Schedule																					)							TOT	TAL O	UTPUT	1071
						_					•																				P-3A
													IT	EM	147		PAGI	E 5								CLA	SSIF	ICAT	ION:	UNCL	ASSIFIED

**CLASSIFICATION:** 

# **UNCLASSIFIED**

		BUDGET P-40	TEM JUST	IFICATION	SHEET		DATE: February 1	1997
APPROPRIATION/B OTHER PROCUE BA-4 ORDNANC	REMENT, N	AVY (OPN	<i>4</i>			OMENCLATUR		LI 5233
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (In Millions)	\$17.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

\*

FY97 and beyond budgeted in the P-1 Engagement Systems Support #151

P-1 SHOPPING LIST

**CLASSIFICATION:** 

ITEM NO.-

148

PAGE NO. 1

**CLASSIFICATION:** 

# **UNCLASSIFIED**

		BUDGET IT P-40	TEM JUSTIF	ICATION S	HEET		DATE: February 1	997					
PPROPRIATION/I OTHER PROCU BA-4 ORDNAN	JREMENT, N	AVY (OPN)			P-1 ITEM NOMENCLATURE  POINT DEFENSE SUPPORT EQUIPME  1999 FY 2000 FY 2001 FY 2002 I								
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003					
QUANTITY													
COST (In Millions)	<b>\$6.5</b>	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0					

DD Form 2454, JUN 86

ITEM NO.-

P-1 SHOPPING LIST

CLASSIFICATION:

PAGE NO. 1

		BUDGI P-40	ET ITEM JU	JSTIFICATI	ON SHEE	Γ	DATE: Febr	uary 1997
APPROPRIATIO	N/BUDGET A	CTIVITY			P-1 ITEM	I NOMENCLA	TURE	
OPN/4 - OR	DANCE SU	JPPORT E	QUIPMENT		AIRBO	ORNE ECM/ECCI	M (84U1)-5235	
	1996	1997	1998	1999	2000	2001	2002	2003
QUANTITY								
COST (In Millions)	\$1.1	\$1.1	\$0.5	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0

JUSTIFICATION: The Surface Navy uses special electronic countermeasures (ECM) support equipment to simulate observed, projected and technologically feasible airborne ECM threat environments. This equipment provides a family of ECM waveform generators, special antennas, microwave components and exciter modules. These assets are used in various aircraft, land-based and target configurations as necessary to stress the electronic counter countermeasure (ECCM) designs of all ship air defense systems. This is necessary to ensure the ECM/ECCM readiness of ship air defense systems at the time of deployment.

This line provides for the procurement of the core ECM equipment which support ECM/ECCM evaluations of all surface Navy air defense systems. There are three continuing cost code items, namely U1005, U1006, and U1018.

U1005/Jammer Equipment Support and U1006/Special Microwave Components are continuing level of effort items, typically involving the purchase of many small components, necessary to sustain various ECM equipment configurations for particular applications and platforms

U1018/Special Purpose Jammer Modules provides for procurement of special purpose jammer configurations, typically consisting of a number of jamming modules, which provide ECM threat simulation capability for particular applications.

P-1 SHOPPING LIST ITEM NO. PAGE NO.

1

CLASSIFICATION:

DD Form 2454, JUN 86

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#### **CLASSIFICATION:**

#### **UNCLASSIFIED**

BU	DGET ITEM JUSTI	FICATION SH P-40					Date: February 199	97
APPROPRIATION/BUDGET ACTIVITY  OTHER PROCUREMENT, NAVY					ENGAGEME			(84UJ)
BA-4 SUPPORT EQUIPMENT	1996	1997	1998	1999	523600 2000	2001	2002	2003
QUANTITY								
COST (In Millions)	* \$26.4	\$14.7	\$6.9	\$1.7	\$1.3	\$1.3	\$1.3	\$1.3

ITEM DESCRIPTION/JUSTIFICATION: The AREA AAW DEFENSE ENGAGEMENT SYSTEM PROGRAM provides for computer program improvements and ordnance alteration material to ENGAGEMENT Missile Systems currently installed in ten (10) operational ships. The computer programs and ordnance alterations are needed to improve systems performance, to improve operational capability and to replace low reliability and obsolete components. The ENGAGEMENT SYSTEMS program supports the following areas:

- 1. RM&A modifications of DDG 993 and CGN 36 Class Ship Weapon Systems to provide capability to fire the SM-2 (MR) Missiles.
- 2. Computer Program and Documentation.
- 3. Modifications to downlink system for enhanced ECM performance.
- 4. Modification to Radar Environment Simulation System (ERESS).
- 5. Modification of DDG 993 and CGN 36 Class ship Weapon Systems to provide new missile improvement capabilities.
- 6. Installation of equipment required for fleet modernization.
- 7. Modify MK 26 GMLS to improve Reliability, Maintainability and Availability (RM&A).

The SM-2 modification provides changes to the ENGAGEMENT SYSTEMS Missile Fire Control System (MFCS) on the DDG 993 and CGN 36 ship Class and GFE trainers to upgrade the AAW capability to utilize the SM-2 Missile. This ORDALT group consists of improvements to correct reliability, improve equipment safety, shock hardening, and correct installation and performance anomalies revealed during Fleet Operational Testing and Evaluation. The ORDALTs are usually minor in scope and are emergent, requiring corrective action to resolve fleet reported problems. Various ordalts are required to fully implement SM-2 capabilities and correct existing problems.

FY 1996 funds are identified under P-1 number 148 and 170.

P-1 SHOPPING LIST ITEM NO. 151 PAGE NO. 1 CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET		DATE:
P-40		
		February 1997
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
OTHER PROCUREMENT, NAVY BA-4 SUPPORT EQUIPMENT	ENGAGEMENT SYSTEMS SUPPO	DRT (84UJ) 523600

#### UJ034

MK 26 MIDLIFE UPGRADE: Currently, MK 26 Guided Missile Launching system (GMLS) ranks as one of the most troubled systems in the fleet. Due to obsolete parts and less than optimum design of major hydro-mechanical components, Reliability, Maintainability and Availability (RM&A) of MK 26 GMLS has been degrading, thus decreasing system availability and leading to eventual shutdown of AAW capability in DDG 993 and CG 47 Class ships. Mk 26 Midlife Upgrade replaces the existing control system with a microprocessor-based control system eliminating the need for obsolete parts. Major items such as transmissions and controls will be replaced to fix many of the launching system's mechanical problems.

These ORDALTS will increase availability of MK 26 GMLS while reducing excessive field service and overhaul cost. Six units have been procured in prior years, with eleven units remaining to complete the program at a total cost of \$21.9M.

#### UJ035

COMPUTER PROGRAMS AND DOCUMENTATION: This line provides for the Computer Programs and Documentation associated with the changes and the installation and checkout of changes to the MFCS, AN/SYR-1, WDS MK 14, GMLS, CDS, CFCS, Detection Systems, Inertial Navigation System and all other interface changes to the Engagement Subsystem.

These changes are those which result after the R&D effort has delivered the baseline products to the first ship of the class. These changes are sea, midlife improvements, Fleet utilization, deficiencies in hull configurations, such as four MFCSs vice two MFCSs and GMLS MK 13 vice GMLS MK 26. Computer programs and documentation updates require extensive effort in the areas of Performance Definition, Design Definition, Implementation, Test, and Life Cycle Support. This effort requires updating to reflect these modifications to Performance specifications, Design specifications, Interface Design Specifications, Simulations/Support tools, Operators Manuals and all associated training materials. Two computer program deliveries are reflected in this budget, which equate to short term and long term reliability improvements.

#### UJ5IN

INSTALLATION: Funding is for the installation of equipment, including Fleet Modernization Program installations.

#### <u>UJDSA</u>

The budget reflects the transfer of design services into the appropriate equipment P-1 line item in accordance with full funding policy FY 98 and out.

CLASSIFICATION:	<u>UNCLASSIFIED</u>	EAPON SYSTEM C	OST ANAI	LYSIS						DATE:
APPROPRIATION/BUD	T, NAVY	P-1 ITE		February 1997						
A-4 ORDNANCE SUPF	PORT EQUIPMENT				TOTAL					
COST	ELEMENT OF COST	IDENT CODE	FY	1996	FY	1997	FY	1998	FY	1999
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
J001	RM&A ORDALTS			4,935		1,526		1,214		473
JJ034	MK 26 MID-LIFE UPGRADE		7	14,222	4	8,236				
JJ035	COMPUTER PROG & DOC			2,500		1,613		815		838
JJ5IN	INSTALLATION OF EQUIP(FMP)			4,765		3,366		4,106		418
JJDSA	DESIGN AGENT							746		
	TOTAL			26,422		14,741		6,881		1,728

DD FORM 2446, JUN 86 P-1 SHOPPING LIST CLASSIFICATION: UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING PLANNING EXHIBIT (P-5A)										DATE			
	IATION/BUDGET ACTIVITY					MENCLATU			SUBHEAD	February 1997			
	COCUREMENT, NAVY PORT EQUIPMENT				ENGAGEME	NT SYSTEMS	SUPPOR	523600		84UJ			
COST	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE		
								(000)					
UJ034	MK 26 MIDLIFE UPGRADE												
	FY 96	FMC MINNEAPOLIS,MN	SS/FP	NAVSEA	5/96	1/97	7	\$1,688 *	YES	NO			
	FY 97	FMC MINNEAPOLIS, MN	SS/FP	NAVSEA	12/96	1/98	4	\$2,059*	YES	NO			

REMARKS

\* UJ034 - Does not include non-recurring costs.

CLASSIFICATION: UNCLASSIFIED P3A			INDIVIDU	AL MOD	IFICATION														COST CODE: 1	JJ034	
MODIFICATION TITLE: ENGAGEMENT SYST MODELS OF SYSTEMS AFFECTED: MK 26 ( DESCRIPTION/JUSTIFICATION: OBSOLETE DEVELOPMENT STATUS/MAJOR DEVELOP	GMLS MIDLIFE PARTS REPLACEMENT DDG 993 AND CO	G 47 CLASS	INDIVIDO		FY 96 &													TO COMP	TO COMP	TOTAL	TOT 4
FINANCIAL PLAN (IN MILLIONS)					PRIOR	QTY	FY 97	QTY	FY 98	QTY	FY 99	QTY	FY 00	QTY	FY 01	QTY	FY 02	QTY	COST	QTY	COST
RDT&E PROCUREMENT																				0	0.0
QUANTITY																					0.0
INSTALLATION KITS																				0	0.0
INSTALLATION KITS NON-RECURRING																				0	0.0
EQUIPMENT EQUIPMENT NON-RECURRING				13	26.5 10.7	4	8.2 1.1		0.7											17 0	34.7 12.5
ENGINEERING CHANGE ORDERS					10.7		1.1		0.7											0	0.0
DATA																				0	0.0
TRAINING EQUIPMENT																				0	0.0
SUPPORT EQUIPMENT																				0	0.0
OTHER TOTAL																				<u>0</u> 17	0.0
INTERIM CONTRACTOR SUPPORT																				0	47.2 0.0
INSTALLATION OF HARDWARE																					
FY96 EQUIPMENT & PRIOR				6	7.0	7	4.0													40	0.10
FY96 EQUIPMENT & PRIOR FY97 EQUIPMENT				6	7.3	/	1.8	4	3.2											13 4	9.10
FY98 EQUIPMENT									5.2											0	0.00
FY99 EQUIPMENT																				0	0.00
FY00 EQUIPMENT																				0	0.00
FY01 EQUIPMENT																				0	0.00
FY02 EQUIPMENT FY03 EQUIPMENT																				0	0.00
TO COMPLETE																				0	0.00
TOTAL QTY																				<u>17</u>	
TOTAL INSTALLATION COST					7.3		1.8		3.2		0.0		0.0		0.0		0.0		0		12.3
TOTAL PROCUREMENT COST					37.2		9.3		0.7		0.0		0.0		0.0		0.0		0.0		47.2
TOTAL COST					44.5		11.1		3.9		0.0		0.0		0.0		0.0		0.0		59.5
METHOD OF IMPLEMENTATION:	AIT				ADA	AINIICTD ATIV	E LEADTIME: 6	MONTHS					PRODUC	TION I E	DTIME:	13 MONT	ue.				
CONTRACT DATE:		IOR YEAR:				RRENT YEAR		WICHTITIS	F	SUDGET YE	AR: 12/95				YEAR:12/9		ПО				
PRODUCTION DELIVER DATE:		IOR YEAR:				RRENT YEAR				SUDGET YE					YEAR: 1/9						
INSTALLATION SCHEDULE:																					
INSTALLATION SCHEDULE:	INPUT =====>		FY 95		FY 96		FY 97		FY 98		FY 99		FY 20		TC						
			1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4	-			TOTAL		
							00,00,00,00		00,00,00,00		00,00,00,00		00,00,00,00		00,00,00,00	)		_	0		
	FY 96 & PRIOR				6		7												6		
	FY 97 FY 98								4										7 <u>4</u>		
TOTAL	F1 90																		17		
	OUTPUT ====>		FY 95		FY 96		FY 97		FY 98		FY 99		FY 20		TC						
			1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4				TOTAL		
				00	0,00,00,00		00,00,00,00		00,00,00,00		00,00,00,00		00,00,00,00		00,00,00,00	)		_		_	
	FY 96 & PRIOR FY 97				4 2		7		4										13		
	FY 97 FY 98								4										4		
TOTAL	1130																		17		
																			_		
1																					
																					D 04
								ITEM NO. 15		PAGE NO. 5									NCI ASSIFIED		P-3A

MODIFICATION TITLE: ENGAGEMENT				L MODIFICATI	0.1												,	COST CODE:	U300 I	
ODELS OF SYSTEMS AFFECTED: (N				_																
ESCRIPTION/JUSTIFICATION: UPGF		PABILITY TO UTI	LIZE SM-2 MISSI	.E																
DEVELOPMENT STATUS/MAJOR DEV	ELOPMENT MILESTONES:																TO	TO		
				FY 96 TY PRIOR	QTY	EV 07	QTY	FY 98	QTY	FY 99	QTY	EV 00	OTV	FY 01	QTY	FY 02	COMP QTY	COMP	TOTAL QTY	CC
INANCIAL PLAN (IN MILLIONS)		_		II PRIOR	QIT	FY 97	QIT	F1 90	QIT	F1 99	QIT	FY 00	QTY	FTUI	QIT	F1 02	QIT	0031	QIT	
RDT&E																			0	0
PROCUREMENT QUANTITY																			0	0
INSTALLATION KITS																			0	0
INSTALLATION KITS NON-RECURRIN	IC																		0	0
EQUIPMENT	iG .		١.	AR 2.2	VAR	1.0			VAD	0.5	VAR	0.4								
EQUIPMENT NON-RECURRING			٧	AR 2.2 0.6	VAR	1.0		0.7	VAR	0.5	VAR	0.4							VAR	4
				0.6		0.4		0.7											0	1.0
ENGINEERING CHANGE ORDERS DATA																			0	
TRAINING EQUIPMENT																			0	0.
SUPPORT EQUIPMENT																			0	
OTHER																			0	0.
INTERIM CONTRACTOR SUPPORT																			0	
NSTALLATION OF HARDWARE																			U	0.0
NSTALLATION OF HARDWARE																				
FY96 EQUIPMENT & PRIOR					VAR	1.6													0	1.6
FY97 EQUIPMENT							VAR	0.4											0	0.4
FY98 EQUIPMENT									VAR	0.4									0	0.4
FY99 EQUIPMENT											VAR	0.4							0	0.4
FY00 EQUIPMENT																			0	0.0
FY01 EQUIPMENT																			0	0.0
FY02 EQUIPMENT																			0	0.0
FY03 EQUIPMENT																			0	0.0
TO COMPLETE																			0	0.0
TOTAL INSTALLATION COST				0.0		1.6		0.4		0.4		0.4		0.0		0.0		0		2.8
TOTAL PROCUREMENT COST				2.8		1.4		0.7		0.5		0.4		0.0		0.0		0.0		5.8
TOTAL COST				2.8		3.0		1.1		0.9		8.0		0.0		0.0		0.0		8.6
METHOD OF IMPLEMENTATION:	AIT				ADMINISTRAT	IVE LEADTIME: 6	MONTHS					PRODUC <sup>*</sup>	TION LEA	ADTIME:	13 MONT	THS				
CONTRACT DATE:		PRIOR YEAR	₹:		CURRENT YE	AR: 12/94		E	BUDGET Y	EAR; 12/95				BUDGET	YEAR: 12	2/96				
PRODUCTION DELIVER DATE:		PRIOR YEAR	₹:		CURRENT YE	AR: 1/96		E	BUDGET Y	EAR: 5/97				BUDGET	YEAR: 1/	98				
NSTALLATION SCHEDULE:																				
TO MED TION OUTEDOLE.	INPUT =====>		FY 95	FY 96		FY 97		FY 98		FY 99		FY 20		TC						
			1, 2, 3, 4	1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4	_			TOTAL		
						00,00,00,00		00,00,00,00		00,00,00,00	0	0,00,00,00	(	0,00,00,00	0		_		_	
	FY 96 & PRIOR																	VAR		
	FY 97																			
	FY 98		*VAR																	
	OUTPUT ====>		FY 95	FY 96		FY 97		FY 98		FY 99		FY 20		TC						
	COTFOT =====>		1, 2, 3, 4	1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4	-			TOTAL		
			00,00,00,00	00,00,00,0	0	00,00,00,00		00,00,00,00		00,00,00,00		0,00,00,00		0,00,00,00			-			
	FY 96 & PRIOR																,	VAR		
	FY 97																			
	FY 98		*VAR																	
	CT VARIOUS TYPES OF EQUI	IPMENT.																		P-3A

						SED REQUIREME ENT SHEET-INST P-23A							DATE	February 1997	
	ROCUREMI	DGET ACTIVIENT, NAVY BA						P-1 ITEM NO ENGAGEMEN MK 26 MIDLIF	T SYSTEMS	SUPPORT 5					
1ST QT		2ND QTF	₹	3RD QTR		4TH QTR		1ST QTR		2ND QTF	?	3RD QTR		4TH QTR	
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
			FY	96							FY	97			
		DDG 996 CG 48	1 1	DDG 995	2	DDG 994	1			CG 49	1	DDG 993 CG 50	2 2		
			FY	98							FY	99		<u> </u>	
CG 47 DDG 996	2 1	DDG 994	1			CG 48 CG 49	1 1							CG 51	1
	<u> </u>	ļ	<u> </u>	<u> </u>			L	DDING LIST	ļ	L	<u> </u>		L	LINCI ASSIEIED	

P-1 SHOPPING LIST

ITEM NO. 151 PAGE NO.7

		BUD	G	ET	ITEM	JU	STIFIC	<b>A</b>	TION SI	HE	ET			Feb	oruary 19	97	
APPROPRIATION/BUDGET	ACTIVITY									P-1 IT	EM NOMENCLATURE						
OPN BA 4: OR	DNANCE	E SUPPO	RT	EQUI	<b>PMENT</b>					NA	TO SEASPAR	RRC	)W #5237	700			
	F	Y 1996		FY	1997	F	FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003
QUANTITY																	
COST (In Millions)	\$	6.5	1]	\$	4.6	\$	6.9	\$	27.3	\$	55.1	\$	50.5	\$	61.1	\$	62.8

#### NATO SEASPARROW Surface Missile System (NSSMS)

NATO SEASPARROW is a Self Defense AAW Shipboard Missile System

Primary operations consist of:

- Acquiring targets from external or internal designations
- Establishing track data for Engageability Determination and Launcher/Missile Control
- Target Illumination for Missile Guidance
- Missile Firing
- Kill/Survive Assessment

Provides fully automatic operation with provisions for Operator Intervention or Override from the time of Target Designation to Missile Away.

The NSSMS consists of a Fire Control System comprised of: Directors, a General Purpose Digital Computer, Signal Data Convertors, Transmitter Group, Operating Consoles, and an 8 Cell Launcher which employs the surface launch variant of the Sparrow Missile. The Surface Launch Version (RIM-7) Uses a Radar Homing Guidance System, with Target Illumination provided by the shipboard MK91 System Radar Directors.

When NSSMS is combined with the MK23 Target Acquisition System (TAS), they become the AN/SWY-1 Self Defense Surface Missile System (SDSMS) for the following U.S. Navy Ships: AOE/AORs, CV/CVNs, DD963s, LHDs, Self Defense Test Ship, and shore based facilities.

1] FY 1996 funding is in line #149. This Program P-1 line was separated for the FY97 and outyears from the P-1 Item Nomenclature Point Defense Support equipment (#149).

**EXHIBIT P-40** 

P-1 SHOPPING LIST
ITEM NO. PAGE NO.
152 1

#### BUDGET ITEM JUSTIFICATION SHEET continuation) February 1997 (Exhibit P-40 cont.) 1 ITEM NOMENCLATURE OPN BA 4: ORDNANCE SUPPORT EQUIPMENT NATO SEASPARROW #523700

The NSSMS is a NATO Cooperative Project with the participating governments of Australia, Belgium, Canada, Denmark, Germany, Greece, Italy, Norway, The Netherlands, Portugal, Spain, Turkey and the United States. The NSSMS and associated systems of the Cooperative Project were developed, produced and are supported under an International Memorandum of Understanding (MOU).

The NATO Cooperative Project is currently in the Engineering, Manufacturing & Development Phase (EMD) for the Evolved SEASPARROW Missile (ESSM) and associated NSSMS/MK91 Fire Control modifications. Production of the system changes to accommodate ESSM are introduced in FY99.

The FY98 budget request for NSSMS provides funding for:

Minor Engineering Changes/Ordnance Alterations (software or hardware) procured in response to the fleet concerns of the combat readiness (including safety and relaibility) of the system. End of system production has mandated reuse of systems as well as ensuring systems in the Fleet have required changes for reliability and performance improvements.

The ECP/Ordalts procured under this line in FY98 will be installed in NSSMS on AOE/AORs, CV/CVNs, DD 963 and LHD Class ships. Installation will be accomplished in a regular overhaul, restricted availability or Tiger Team. Naval Surface Warfare Center, Port Hueneme Division functions as the In Service Engineering Agent (ISEA) and support agent.

FY99 funding introduces the following:

The MK91 NATOSEASPARROW Guided Missile Fire Control System (GMFCs) Rearchitecture Program which integrates NSSMS into the Ship Self Defense (SSDS) architecture to provide an additional layer of ship missile defense. This effort consists of combining the Firing Officer Console and Radar Set Console functionality into a single Advanced Display System Console (AN/UYQ 70), modifying the Signal Data Processor and redistributing this functionality within SSDS Compatible microprocessors. This modification will allow for full exploitation of the capabilities of the future ESSM, as well as provide reductions in the cost of ownership and manning. The MK91/ESSM modification will be installed on CV/CVNs, LHD and LPD class ships. The Transmitter/SEAT/SDP upgrade will be installed on all NSSMS ships.

Installation of this major upgrade will be done at the shipyards during scheduled availability.

The budget reflects the transfer of design services into the appropriate equipment P-1 line item in accordance with full funding policy FY98 and out.

**EXHIBIT P-40** 

WEAPON SYST	EM C	OS	T ANALYS				February 19	97	
OPN BA4: ORDNANCE SUPPORT EQUIPMENT					OMENCLATURE  D SEASPARROV	W			
OT N DA4. ORDINANCE SUIT ORT EQUILIBRIUM	1	1			AL COST IN THOU		S OF DOLLARS		
ELEMENT OF COST	IDENT		FY96		FY97	OAND	FY98		FY99
	CODE	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
(1)	(2)	(3)	(6)	(5)	(8)	(7)	(8)	(9)	(10)
US003 NSSMS IMPROVEMENTS US004 ESSM/MK91 SYSTEM MODIFICATION US900 NSSMS - CSS US5IN EQUIPMENT INSTALLATION (FMP) USDSA DESIGN SERVICES			5,504 - 375 601		3,690 - 312 612		5,693 - 375 683 115		5,484 19,274 750 1,539 238
TOTAL  [1] "FY96 budgeted in the P-1 Point Defense Sup	port Fa		\$ 6,480		\$ 4,614		\$ 6,866		\$ 27,285
[1] F 196 budgeted in the P-1 Point Defense Sup	port Eq	шрте	nt.						FXHIBIT P-5

EXHIBIT P-5

MODIFICATION TITLE: VARIOUS UPGRADES FOR THE NATO SEASPARROW

MODELS OF SYSTEM AFFECTED: NATO SEASPARROW SURFACE MISSILE SYSTEMS (NSSMS)

DESCRIPTION/JUSTIFICATION: The NSSMS Ordalt line provides for engineering changes/ordnance alterations (software or hardware) procured in response to fleet concerns.

FY00 introduces the transmitter upgrade for other than the MK91 Rearch ships. FY03 introduces the Signal Data Processor (SDP) upgrade.

The Solid State transmitter upgrade in FY00 will:

- Support ESSM upgrade on the Designated Ships

- Uses Modular Solid State PA design

- Replaces the current Klystron Vacuum Tubes resulting in:

• Lower Cost of Ownership

• Improved realiability

• Reduced system downtime

• Lower associated maintenance for parts replacement

Non-recurring effort associated with the Transmitter upgrade will complete in FY98.

#### DEVELOPMENT STATUS/MAJOR:

#### DEVELOPMENT MILESTONES:

	FY96									
	& PRIOR	FY 97	Otv FY 98	FY 99	FY 00	FY01	FY02	FY03	TC_	Total
FINANCIAL DI ANI (C in Millione)	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$ C	Qty \$
FINANCIAL PLAN (\$ in Millions)										
RDT&E										
PROCUREMENT (VARIOUS)	5.4	3.8	5.7	5.5	7.4	13.5	7.7	31.5	Continuing	Continuing
Kit Quantity										
Installation Kits										
Installation Kits Nonrecurring										
Equipment (Various Ordalts)	5.4	2.0 1.8	4.5 1.2	5.5	7.4	11.6 2.2	6.0 1.7	31.5	Continuing	Continuing
Equipment Nonrecurring		1.8	1.2			2.2	1.7			6.9
Engineering Change Orders Data										
Training Equipment										
Support Equipment										
Other										
Interim Contractor Support										
Installation of Hardware										
(FY96 & Prior Equipment VARIOUS)	0.6	* 0.6	0.7							
(FY97 Equipment VARIOUS)				0.7						
(FY98 Equipment VARIOUS)					0.5					
(FY99 Equipment VARIOUS)						0.3	0.3	0.6		
(FY00 Equipment VARIOUS)										
(FY01 Equipment VARIOUS)									Continuing	Continuing
(FY02 Equipment VARIOUS)										
(FY03 Equipment VARIOUS)										
Total Installation Cost	0.6	0.6	0.7	0.7	0.5	0.3	0.3	0.6		
Total Procurement Cost	5.4	3.8	5.7	5.5	7.4	13.5	7.7	31.5		
Total Cost	6.0	4.4	6.4	6.2	7.9	13.8	8.0	32.1		

EXHIBIT P-3A

THOD OF IMPLEMENTATION: ' INTRACT DATE:		ATIVE LEADTIME: 6 Mi udget Year 1: VAR	Budget Year 2:		VARIES 18 TO 24 M	ONTITIO.				
ODUCTION DELIVER DATE:		udget Year 1: VAR	Budget Year 2:						ТО	
STALLATION SCHEDULE:	FY96 & PY	FY97	FY98	FY99	FY00	FY01	FY02	FY03	COMPLETE	
NPUT ======>	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	TOTAL
FY96 & Prior	13 13 13 12	6 6 5 5	5 5 5 3	4 4 4 3						106
FY97				6 6 6 5	2 2 2 2					31
FY98 FY99					4 4 4 4	2 1 1				16 4
FY00						2 1 1	2 2 3 3			10
FY01							2 2 3 3	3 4 4 4		15
FY02									3 3 3	9
FY03										
TC									TO	
	FY96 & PY	FY97	FY98	FY99	FY00	FY01	FY02	FY03	COMPLETE	
UTPUT ======>	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	TOTAL
FY96 & Prior	9 13 13 13	12 6 6 5	5 5 5 5	3 4 4 4	3					115
FY97 FY98				6 6 6	5 2 2 2 4 4 4	2 4				31 16
FY99					4 4 4	4 2	1 1			4
FY00						2	2 2	3 3		10
FY01								3 4	4 4	1:
FY02									3 3 3	
FY03										

SEE ATTACHED SHIP LISTING FOR TRANSMITTER INSTALL

EXHIBIT P-3A

Installation is for FY96 & Prior procurements as reflected in P-1 Line No. 163 "POINT DEFENSE SUPPORT EQUIPMENT" (System - NSSMS)

<sup>\*\*</sup> NOTE: Installation is with Tiger Team or in regular overhaul or restricted availability

MODIFICATION TITLE: MK91 REARCHITECTURE/ESSM UPGRADE

MODELS OF SYSTEM AFFECTED: NATO SEASPARROW SURFACE MISSILE SYSTEMS (NSSMS)

DESCRIPTION/JUSTIFICATION: The MK91 NATO Seasparrow Rearchitecture Program will integrate NSSMS into the SSDS architecture to provide an additional layer of ship missile defense. This

upgrade will eliminate the analog point to point architecture and other deficiencies resident in the existing MK57 NSSMS as well as allow for full exploitation of the

ESSM. Additionally, reductions in NSSMS cost of ownership (fleet) and manning will be realized.

DEVELOPMENT STATUS/MAJOR Ongoing development scheduled for completion in FY 98

DEVELOPMENT MILESTONES:

		Y96 PRIOR		FY 97		FY 98		FY 99		FY 00		FY01		FY02		FY03		TC		Total
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FINANCIAL PLAN (\$ in Millions)																				
RDT&E																				
PROCUREMENT (VARIOUS) 1]								19.3		45.6		30.4		39.3		16.1		Continuing	I	150.7
Kit Quantity - Ship Sets							2		4		4		4		2				16	
Installation Kits																				
Installation Kits Nonrecurring																				
Equipment (Various Ordalts)								15.3		41.4		29.4		39.3		16.1		Continuing	I	141.5
Equipment Nonrecurring								4.0		4.2		1.0								9.2
Engineering Change Orders																				
Data																				
Training Equipment							1		2											
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
(FY96 & Prior Equipment VARIOUS)																				
(FY97 Equipment VARIOUS)																				
(FY98 Equipment VARIOUS)																				
(FY99 Equipment VARIOUS)								0.9		0.6	2	3.7								5.2
(FY00 Equipment VARIOUS)												0.8	4	8.4						9.2
(FY01 Equipment VARIOUS)														1.2	4	9.5				10.7
(FY02 Equipment VARIOUS)																0.7		Continuing	I	0.7
(FY03 Equipment VARIOUS)																				
Total Installation Cost 2]		0.0		0.0		0.0		0.9		0.6		4.5		9.6		10.2				25.8
Total Procurement Cost		0.0		0.0		0.0		19.3		45.6		30.4		39.3		16.1				150.7
Total Cost		0.0		0.0		0.0		20.2		46.2		34.9		48.9		26.3				176.5

NOTE: 1] Procurement cost varies by year dependant on ships (CV/CVNs have 2 dual systems, while a LHD has 2 singles, etc.)

NOTE: 2] FY99 and FY00 funding provides preplanning for the LHD-1and the CVN-65. Shipyard defines cost for this effort. LHD-1 is the lead ship and as such, costs will be higher than follow on LHD ships. See attached P-23A exhibits for ship hull installation. The install cost do not include design.

**EXHIBIT P-3A** 

P-1 SHOPPING LIST
ITEM NO. PAGE NO.

DD Form 2454, JUN 86 PAGE NO. UNCLASSIFIED

METHOD OF IMPLEMENTATION: ** See below ADMINISTRATIVE LEAD	STIME: 6 MONTHS - DDODLICT	ION LEADTIME: 18	months				
CONTRACT DATE: 1/ January 1999	TIME. 6 MONTHS. PRODUCT	ION LEADTINE. 16	monuis.				
1							
PRODUCTION DELIVER DATE: 1/ 18 months after contract award  INSTALLATION SCHEDULE: INPUT =======> FY99	FY00 1 2 3 4	FY01 1 2 3 4 1 1	FY02 1 2 3 4	FY03 1 2 3 4	FY04 1 2 3 4	TO COMPLETE 1 2 3 4	TOTAL 2
FY00 FY01			1 2 1	1 2 1			4
FY02 FY03 TC					2 2	2	4 2
OUTPUT ======> FY99	FY00 1 2 3 4	FY01 1 2 3 4 1	FY02 1 2 3 4 1	FY03 1 2 3 4	FY04 1 2 3 4	TO COMPLETE 1 2 3 4	TOTAL 2
FY00 FY01 FY02 FY03 TC			3	1 1	2 1	4 2	4 4 4 2

1/ Contract award in January 1999 will include options to be exercised no later than 31 December each FY for follow on procurements.

Note: See attached P-23A for specific MK91 Rearch/ESSM install plan by ship

**EXHIBIT P-3A** 

						IREMENTS SCHEDUT-INSTALLATION DA						DATE			
				(OOT FEINE		2-23A	,					F	ebru	ary 1997	
APPROPRIATION	N/BUDGET	ACTIVITY						P-1 ITEM NOMENO	CLATURE	PROJECT UNIT					
OPN BA 4:	: ORD	ANCE SUP	PORT	EQUIPMEN	ΝΤ			NATO SEA	SPAF	RROW					
1ST QTR		2ND QTR		3RD QTR		4TH QTR		1ST QTR		2ND QTR		3RD QTR		4TH QTR	
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
			ͰY	1999							ͰY	2000			
O															
P															
N				CVN-68	1			CVN-76	1						
				C V 11-00	1			C V 1 1 - 7 0	1						
S															
S C															
N															
			ͰY	2001							ͰY	2002			
LHD-1	1					CVN-65	1	SWEF	1	WALLOPs	1	LHD-5	1		
								LHD-4	1	ISLAND					
O TRAINER P DAMNEC										CVN-70 CV-67	1 1				
N DAMNEC										C V - 07	1				
S															
C															
N															

DD Form 2447S, JUN 86

\* Increase in population of systems and the USS SARATOGA incident requires accommodation for training of personnel, system from decommissioned assets.

P-1 SHOPPING LIST ITEM NO. PAGE NO. 152 6

- \* Installation is for the MK91 Rearch/ESSM Upgrade on existing NSSMS systems.
- \* Installation (including transmitter) will be done at shipyard during scheduled availability.

						IREMENTS SCHEDUT-INSTALLATION DA						DATE			
				(OOI I ELIVIE		-23A	NIA)					February '	1997		
APPROPRIATIC	N/BUDGET	ACTIVITY						P-1 ITEM NOMENO	CLATURE	/PROJECT UNIT					
OPN BA 4	: ORD	ANCE SUP	PORT	EQUIPMEN	NT			NATO SEA	SPAR	RROW I	AK RE	CARCH/ESSN	M UPG	RADE INST	'ALL
1ST QTR		2ND QTR		3RD QTR		4TH QTR		1ST QTR		2ND QTR		3RD QTR		4TH QTR	
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
			ΗY	2003							ΗY	2004			
P N		CVN-72	1	LHD-2 CVN-75	1 1	CVN-74	1					LHD-6 CVN-71	1 1	CVN-73 LHD-7	1 1
S C N		CVN-69	1												
			FY	2005									<u> </u>		ı
O P N		LPD-17	1	LPD-18	1										
S C N															

DD Form 2447S, JUN 86

Increase in population of systems and the USS SARATOGA incident requires accommodation for training of personnel, system from decommissioned assets.

P-1 SHOPPING LIST ITEM NO. PAGE NO. 152 7

- \* Installation is for the MK91 Rearch/ESSM Upgrade on existing NSSMS systems.
- \* Installation (including transmitter) will be done at shipyard during scheduled availability.



BUDG	ET ITEM 3	JUSTIFICA	TION SHE	ST			FEBRUA	RY 1997
APPROPRIATION/BUDGET	ACTIVITY				P-1 ITEM	NOMENCLA	ATURE	
OTHER PROCUREMENT, NAV	y/4 ordnan	ICE SUPPOR	T EQUIPME	NT	ROLLING AI	RFRAME MISS	SILE (RAM)	5238
	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
QUANTITY								
COST (IN MILLIONS \$)	44.5	44.5	68.3	61.2	27.9	10.3	44.0	45.3

#### Rolling Airframe Missile (RAM) (MK-49 Guided Missile Launching System (GMLS)

RAM is a NATO cooperative project with Germany. The RAM production MOU, approved by the U.S. and Germany on 3 August 1987, requires coproduction of the RAM Guided Missile Launching System. In August 1992, General Dynamics(ADSD) was acquired by Hughes Aircraft Company.

The RAM is a lightweight, quick-reaction, high firepower missile system designed to provide antiship missile defense. The MK-31 Guided Missile Weapons System (GMWS) is comprised of a MK-44 Guided Missile Round Pack (GMRP) and the MK-49 GMLS, which holds 21 RAM missiles. The 21-round launcher is compatible with various platforms ranging from large USN amphibious assault ships to S-143 type German patrol boats. This system is designed to counter high density anti-ship, cruise missile raids and provide for ship survivability with accurate terminal guidance, proven lethality and no fire control channel dependence.

Full-Scale Engineering Development (FSED) began in 1979. Milestone IIIA Approval for Limited Production (ALP) was granted 27 April 1987, and operational tests were completed in April 1990. Approval for Full Rate Production was granted 6 May 1993. The total RAM Guided Missile Launching System (GMLS) procurement program is 146 launchers (82 OPN (including one trainer), 21 SCN, and 43 German systems). 91 Launchers (41 U.S. OPN, 7 U.S. SCN and 43 German) were procured in FY 1997 and prior years under joint US/German production contracts. Of the 55 remaining launchers, 28 OPN and 12 SCN launchers are budgeted in the years FY98 through FY03. The total program cost for the remaining OPN launchers is \$410.1 million. 13 OPN and 2 SCN units are planned beyond the FYDP.

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1





BUDGET ITEM JUSTIFICATION SHEET	FEBRUARY 199
(Exhibit P-40 cont.)	
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE
THER PROCUREMENT, NAVY/4 ORDNANCE SUPPORT I	EQUIPMENT ROLLING AIRRAME MISSILE (RAM) 5238
TAM is installed on or planned for installation on	the following ship classes.
RAM is installed on or planned for installation on	the following ship classes:
Class	Ships
LHA (OPN)	5
LSD (OPN)	11
LSD (SCN)	1
DD 963 (OPN)	24
	24 4
DD 963 (OPN)	
DD 963 (OPN) LHD (OPN)	
DD 963 (OPN) LHD (OPN) LHD (SCN)	
DD 963 (OPN) LHD (OPN) LHD (SCN) CVN (OPN)	

The RAM GMLS installations are performed during overhauls or regular shipyard availability. The NSWC Port Hueneme provides installation oversight support as the ISEA for the RAM system. RAM will be installed on LHA, LSD, LHD, DD963, CVN, and LPD ship classes.

The budget reflects the transfer of design services into the appropriate equipment P-1 line item in accordance with full funding policy FY98 and out.

	P-1	SHOPPING LIST	Exhibit P-40
DD Form 2454, JUN 86	ITEM NO.	PAGE NO.	
	153	2	



#### **WEAPON SYSTEM COST ANALYSIS FEBRUARY 1997** C. P-1 ITEM NOMENCLATURE OPN BA 4: ORDNANCE SUPPORT EQUIPMENT ROLLING AIRFRAME MISSILE (RAM) - 5238 TOTAL COST IN THOUSANDS OF DOLLARS ELEMENT OF COST IDENT FY 96 FY 97 **FY 98** FY 99 CODE TOTAL COST TOTAL COST TOTAL COST TOTAL COST (10)(1) (6) (8) (10)UR006 RAM GUIDED MISSILE LAUNCHING SYSTEM 6 27,262 5 23,498 42,300 7 35,313 UR006 RAM ECPs 341 3,255 3,214 Α 5,510 UR006 RAM GMLS ORDALTS 2 5,130 5,280 Α 1,440 0 UR777 RAM ENGR SERVICES (CONTRACTOR) Α 1,013 2,288 3,708 3,854 UR007 RAM GMLS PRODUCTION SPT 3,113 4,367 3,247 4,488 UR900 RAM - CSS 834 413 918 998 Α UR006 RAM GMLS ORDALT INSTALL (NON FMP) 450 149 Α UR5IN EQUIPMENT INSTALLATION (FMP) 10,326 Α 9,651 7,366 6,631 URDSA DESIGN AGENT 1,099 946 Α 0 TOTAL 44,473 68,292 44,463 61,174 \* No German contribution to the joint GMLS program

P-1 SHOPPING LIST

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UNCLASSIFIED

EXHIBIT P-5

#### **FEBRUARY 1997 BUDGET PROCUREMENT HISTORY & PLANNING EXHIBIT (P-5A)** B. APPROPRIATION/BUDGET ACTIVITY C. P-1 ITEM NOMENCLATURE OTHER PROCUREMENT, NAVY / 4 ORDNANCE SUPPORT EQUIPMENT ROLLING AIRFRAME MISSILE (RAM) - 5238 IF YES, CONTRACT DATE OF **SPECS** SPEC METHOD & CONTRACTED AWARD **FIRST** UNIT AVAIL REV WHEN DELIVERY QTY COST LINE ITEM/FISCAL YEAR CONTRACTOR **TYPE** BY DATE NOW ? REQ'D ? AVAIL RAM UR006 FY96 (RAM GMLS) SS/FP NAVSEA 02/96 11/97 \*4544 YES NO Hughes Missile Systems 6 Tucson, Arizona FY97 (RAM GMLS) OPTION NAVSEA 11/96 8/98 4700 YES NO Hughes Missile Systems Tucson, Arizona 4700 FY98 (RAM GMLS) SS/FP NAVSEA 12/97 9/99 9 YES NO Hughes Missile Systems Tucson, Arizona OPTION NAVSEA 12/98 5045 YES FY99 (RAM GMLS) 9/00 NO Hughes Missile Systems Tucson, Arizona

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Exhibit P-5a

<sup>\*</sup> The unit price of FY96 was based on a quantity of eight (6 OPN and 2 SCN)

UNCLASSIFIED FEBRUARY 1997

MODIFICATION TITLE:

#### MODELS OF SYSTEM AFFECTROLLING AIRFRAME MISSILE - ORDALTS

DESCRIPTION/JUSTIFICATION The Rolling Airframe Missile is a lightweight, quick-reaction, high firepower missile system designed to provide antiship missile defense. The system (MK-31 GMWS), comprises an MK-44 Guided Missile Round Pack (GMRP) and the MK-49 Guided Missile Launching System (GMLS), which holds 21 RAM missiles. The 21-round launcher is compatible with various platforms, ranging from large USN amphibious assault ships to \$-143-type German patrol boats. This system is designed to counter high density anti-ship, cruise missile raids and provide for ship survivability with accurate terminal guidance, proven lethality and no fire control channel dependence. This ordalt enables the GMLS to launch either the Block 0 or the Block 1 IRMU Missile.

DEVELOPMENT STATUS/MAJ(Full-Scale Engineering Development (FSED) began in 1979. Milestone IIIA Approval for Limited Production (ALP) was granted 27 April 1987 and Operational Tests were DEVELOPMENT MILESTONES completed in April 1990. Approval for Rate Production was granted 6 May 1993.

	F	Y96	F	Y97	F	Y98	FY99	FY00		FY01	FY02	FY03	TC	Total
													O++- *	
FINANCIAL PLAN (\$ in Millions)	Qty	Þ	Qty	\$	Qty	\$	Qty \$	Qty \$	Qty	\$	Qty \$	Qty \$	Qty \$	Qty \$
RDT&E														
PROCUREMENT														
Kit Quantity														
nstallation Kits														
Installation Kit Nonrecurring														
Equipment														
Equipment Nonrecurring														
Equipment Ordalts	2	1.4			6	5.1	6 5.3	6 4.5		0.0	4 3.2	5 4.3	20 12.8	49 36.60
Unit Cost		0.7				0.9	0.9	0.8		0.0	0.0	0.0	0.6	0.75
Ingineering Change Orders														
raining Equipment														
Support Equipment														
Other														
nterim Contractor Support														
nstallation of Hardware														
(FY96 & Prior Equipment)					2 0	.15								2 0.15
(FY97 Equipment)														0 0.00
(FY98 Equipment)							6 0.45							6 0.45
(FY99 Equipment)								6 0.45						6 0.45
(FY00 Equipment)								0 0.40		6 0.45				6 0.45
(FY01 Equipment)										0 0.40	0 0.00			0 0.00
(FY02 Equipment)											0.00	4 0.30		4 0.30
												4 0.30	5 0.38	5 0.38
(FY03 Equipment) To Complete													20 1.50	20 1.50
					0 0	45	0.045	0.0:5		0 0 45	0 000	4 0 00		
Total Installation Cost *	0 (		0 0		2 (		6 0.45	6 0.45		6 0.45	0 0.00	4 0.30	25 1.88	49 3.675
Total Procurement Cost		1.4		0.0		5.10	5.30	4.50		0.00	3.20	4.30	12.80	36.60
Total Cost		1.4		0.0		5.25	5.75	4.95		0.45	3.20	4.60	14.68	40.28

\* RAM Launcher Ordalt installations do not require FMP installation funding as they can be installed at the Organizational or Intermediate level in two days and require no industrial availability.

The inventory objective for this items is:

METHOD OF IMPLEMENTATION: ORG/INTERME ADMINISTRATIVE LEADTIME: 3 MONTHS PRODUCTION LEADTIME: 12-18 MONTHS CONTRACT DATE: Prior Year: Apr 96 Current Year: Apr 97 Budget Year 1: Dec 97 Budget Year 2: De PRODUCTION DELIVERY DAT Prior Year: Oct 97 Current Year: Oct 98 Budget Year 1: Jun 99 Budget Year 2: Jun 00

LLATION SCHEDULE:									То	
	FY96 & Prior	FY97	FY98	FY99	FY00	FY01	FY02	FY03	Complete	Tota
INPUT	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
FY 96 & PRIOR			00,00,00,02							
FY 97										
FY 98				00,00,00,06						
FY 99					00,00,00,06					
FY 00						00,00,00,06				
FY 01							00,00,00,00			
FY 02								00,00,00,04		
FY 03									00,00,00,05	
To Complete									00,00,00,20	
Total										
	FY96 & Prior	FY97	FY98	FY99	FY00	FY01	FY02	FY03	To Complete	Tot
OUTPUT	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
FY 96 & PRIOR			00,00,00,02							
FY 97										
FY 98				00,00,00,06						
FY 99					00,00,00,06					
FY 00						00,00,00,06				
FY 01							00,00,00,00			
FY 02								00,00,00,04		
FY 03									00,00,00,05	
To Complete									00,00,00,20	
Total										

FY99

FY00

FY01

FY02

IC

**Total** 

#### MODIFICATION TITLE:

FY 02

FY 03

TO COMPLETE

TOTAL

#### MODELS OF SYSTEM AFFECTROLLING AIRFRAME MISSILE [RAM]

DESCRIPTION/JUSTIFICATIOn The Rolling Airframe Missile is a lightweight, quick-reaction, high firepower missile system designed to provide antiship missile defense. The system (MK-31 GMWS), comprises an MK-44 Guided Missile Round Pack (GMRP) and the MK-49 Guided Missile Launching System (GMLS), which holds 21 RAM missiles. The 21-round launcher is compatible with various platforms, ranging from large USN amphibious assault ships to S-143-type German patrol boats. This system is designed to counter high density anti-ship, cruise missile raids and provide for ship survivability with accurate terminal guidance, proven lethality and no fire control channel dependence.

DEVELOPMENT STATUS/MAJ(Full-Scale Engineering Development (FSED) began in 1979. Milestone IIIA Approval for Limited Production (ALP) was granted 27 April 1987 and Operational Tests were DEVELOPMENT MILESTONES completed in April 1990. Approval for Rate Production was granted 6 May 1993.

FY98

FY97

FY96 & Prior

	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$	Qty \$
NANCIAL PLAN (\$ in Millions)										
DT&E										
ROCUREMENT	36 219.6	5 34.8	9 54.6	7 47.8	0 8.7	0 0.0	6 40.3	6 40.1	13 100.9	82 530.9
Cit Quantity										
stallation Kits										
Installation Kit Nonrecurring										
quipment	36 181.7	5 23.5	9 42.3	7 35.3	0.0	0.0	6 31.8	6 32.4	13 80.6	82 427.6
Unit Cost	5.0	4.7	4.7	5.0	0.0	0.0	5.3	5.4	6.2	5.2
Engineering Services (Contractor)	6.3	2.3	3.7	3.8	1.9	0.0	2.4	2.0	4.4	26.8
quipment ORDALTS										
Ingineering Change Orders	8.9	5.5	3.3	3.2	1.2	0.0	1.0	1.0	0.0	24.1
raining Equipment										
Support Equipment										
Other (Prod Supt)	18.9	3.1	4.4	4.5	4.6	0.0	4.1	3.7	13.8	43.3
	3.8	0.4	0.9	1.0	1.0	0.0	1.0	1.0	2.1	43.3 9.1
nterim Contractor Support	3.8	0.4	0.9	1.0	1.0	0.0	1.0	1.0	2.1	9.1
tallation of Hardware										
Y96 & Prior Equipment	19 19.7	10 9.7	7 8.5							36 37.9
Y97 Equipment				5 7.6						5 7.6
Y98 Equipment					9 14.3					9 14.3
Y99 Equipment						7 9.8				7 9.8
Y00 Equipment						. 0.0	0 0.5			0 0.5
Y01 Equipment							0 0.0	0 0.6		0 0.6
								0 0.6	6 9.0	
Y02 Equipment										
Y03 Equipment									6 9.0	6 9.0
o Complete									13 19.5	13 19.5
tal Installation Cost	19 19.7	10 9.7	7 8.5	5 7.6	9 14.3	7 9.8	0 0.5	0 0.6	25 37.5	82 108.2
	219.6	34.8	54.6	47.8	8.7	0.1	40.3	40.1	100.9	530.9
otal Cost	239.3	44.5 IE: 7 MONTHS	63.1 PRODUCT	47.8 55.4 TION LEADTIME: 2	8.7 23.0	0.1 9.9	40.3 40.8 The inventory obj	40.7	138.4	530.9 639.1
FORM COST  ETHOD OF IMPLEMENTATION: SHIPYAFADI DNTRACT DATE: Prior Year: Feb S RODUCTION DELIVERY DAT Prior Year: Nov S	239.3  MINISTRATIVE LEADTIN 96 Current Year: Nov 9 97 Current Year: Aug 9	44.5  ME: 7 MONTHS  16 Budget Year  18 Budget Year 1	PRODUCT 1: Dec 97 Bu 1: Sep 99 Bu	55.4 FION LEADTIME: 2 Idget Year 2: Dec 9 Idget Year 2: Sep 0	8.7 23.0 21 MONTHS 18	9.9	40.8 The inventory obj	40.7 ective for this it	138.4 em is: 82	
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FOR THE PROOF OF T	239.3  MINISTRATIVE LEADTIN 96 Current Year: Nov 9 97 Current Year: Aug 9 FY96 & 1 2 3 4	44.5 IE: 7 MONTHS 6 Budget Year 18 Budget Year 1 Prior FY97 1 2 3 4	63.1  PRODUCT 1: Dec 97 Bu 1: Sep 99 Bu  FY98 1 2 3 4	55.4  TION LEADTIME: 2  Idget Year 2: Dec 9  Idget Year 2: Sep 0  FY99  1 2 3 4	8.7 23.0 21 MONTHS 18 0 FY00 1 2 3 4	9.9 FY01	40.8 The inventory obj	40.7 ective for this it	138.4 em is: 82	639.1 TOTA 36 5
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FOR A PRIOR FY 96 & PRIOR FY 97 FY 98 FY 96 & PRIOR FY 97 FY 98 FY 99 FY 00 FY 01 FY 02 FY 03 FY 04 FY 07 FY 98 FY 99 FY 00 FY 01 FY 02 FY 03 FY 04 FY 07 FY 08 FY 09 FY 09 FY 09 FY 09 FY 01 FY 02 FY 03 FY 04 FY 05 FY 05 FY 06 FY 07 FY 07 FY 08 FY 09	239.3  MINISTRATIVE LEADTIN 96 Current Year: Nov 9 97 Current Year: Aug 9  FY96 & 1 2 3 4  11,02,05,0	44.5  IE: 7 MONTHS  16 Budget Year 1  18 Budget Year 1  10 1,02,06,0  Prior FY97  1 2 3 4  1 01,02,06,0	63.1  PRODUCT 1: Dec 97 Bt 1: Sep 99 Bu  FY98 1 2 3 4 1 03,02,02,0	55.4  FION LEADTIME: 2  ddget Year 2: Dec 9  ddget Year 2: Sep 0  FY99  1 2 3 4  00  01,01,03,00  FY99  1 2 3 4	8.7 23.0 21 MONTHS 80 0 FY00 1 2 3 4 00,06,02,01	9.9 FY01 1 2 3 4 01,06,00,00	40.8 The inventory obj FY02 1 2 3 4 00,00,00,00	40.7 ective for this it  FY03 1 2 3 4  00,00,00,0	138.4  TC 1 2 3 4  0 00,00,00,06 00,00,00,013  TC 1 2 3 4	639.1  TOTA  36 5 9 7 0 0 6 6 13 82  TOTA  36 5 9 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
RODUCTION DELIVERY DAT Prior Year: Nov statement of the prior year. Nov statement of year. Nov statement of the prior year. Nov statement of year. Nov statement o	239.3  MINISTRATIVE LEADTIN 96 Current Year: Nov 9 97 Current Year: Aug 9  FY96 & 1 2 3 4  11,02,05,0	44.5  IE: 7 MONTHS  16 Budget Year 1  18 Budget Year 1  10 1,02,06,0  Prior FY97  1 2 3 4  1 01,02,06,0	63.1  PRODUCT 1: Dec 97 Bt 1: Sep 99 Bu  FY98 1 2 3 4 1 03,02,02,0	55.4  FION LEADTIME: 2  ddget Year 2: Dec 9  ddget Year 2: Sep 0  FY99  1 2 3 4  00  01,01,03,00  FY99  1 2 3 4	8.7 23.0 21 MONTHS 80 0 FY00 1 2 3 4 00,06,02,01	9.9 FY01 1 2 3 4 01,06,00,00	40.8 The inventory obj  FY02 1 2 3 4  00,00,00,00	40.7 ective for this it  FY03 1 2 3 4  00,00,00,0	138.4  TC 1 2 3 4  0 00,00,00,06 00,00,00,013  TC 1 2 3 4	639.1  TOTA  36 5 9 7 0 0 6 6 13 82  TOTA  36 5 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

13 82 EXHIBIT P-3A

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TIME BUASED DEOLIDEMENTS		A. APPROPRIATION/BUDGET OTHER PROCUREMENT, NAVY / 4										ITEM NO			теет	E	E71	EDDIIA	DV 100
TIME PHASED REQUIREMENTS						ΝA	XVY / 4				_			ME M	15511	Æ	F	EBRUA	KY 199
SCHEDULE		ORD		EQUII	P						(RA	.M) 52					L		
			FY					FY				FY					FY 9		
		1	2	3	4		1	2	3	4	1	2	3	4	1	_	2	3	4
ACTIVE FORCE INVEN. (OPN)	(81)		2	5	1		1	2	6	1	3		2			1	1	3	
ACTIVE FORCE INVEN. (SCN)	(21)		2	I			1		1				2	1		1		١	
SCHOOLS/OTHER TRAINING (OPN)	(1)	1		I			1		1					1				١	
OTHER (GERMANY)	(43)	3	3	2			1	2	2					1				١	
TOTAL PHASED REQUIREMENTS	(146)	47	54	61	62		63	67	75	76	79	79	83	85	8	7	88	91	91
ASSETS ON HAND	(14)			1			1						1						
DELIVERY FY96 AND PRIOR (OPN)	(21)			1			1						1						
DELIVERY FY96 AND PRIOR (GE)	(39)			I			1		1			1	1	1					
DELIVERY FY96 AND PRIOR (SCN)	(4)			I			1		1			1	1	1					
FY95 (GE)	(4)			1			1	2	2				1	1					
FY95 (US OPN)	(9)			I			1	2	6		1	1	I	1					
FY96 (US OPN)	(6)		S				1		I		2	1	2	2		- 1			
FY96 (US SCN)	(2)		S	I			1		I			1	2	1					
FY97 (US OPN)	(5)						S		I			1				1	1	3	
FY97 (US SCN)	(1)			I			S		I			1	I	1		1			
FY98 (US OPN)	(9)			I			1		1		S	1	I	1			-	J	
FY98 (US SCN)	(6)			I			1		1		S	1	I	1			-	J	
FY99 (US OPN)	(7)			I			1		1			1	I	1	S		-	J	
FY01 (US OPN)	(0)						1		I			1		1	S				
FY02 (US OPN)	(6)						1		I			1		1		- 1	-	J	
FY02 (US SCN)	(6)			I	I				I			I	I	I		- 1			
FY03 (US OPN)	(6)		l	I	I		1		I	1		I	I	I		- 1	I	I	
Beyond FYDP (US OPN)	(13)				1		i		l			İ	l	İ		i	ĺ	ı	
Beyond FYDP (US SCN)	(2)				l		i		i I			Ī	l	İ		i	ĺ	ĺ	
TOTAL ASSETS	(146)	64	64	64	64		64	68	76	76	79	79	83	85	8	7	88	91	91
QUANTITY OVER (+) OR SHORT (-)		17	10	3	2		1	1	1	0	0	0	0	0		0	0	0	0
D. REMARKS:		E.	RQMT	(QTY)			ТОТА	L				ON		FY9	8 &		FY9	9 & 01	UT
						R	EQUIR	EMEN	INSTA	LLED		HAND	PRIC	OR UN	DEL		UNFU	INDED	,
	ŀ	1. AF	PN O	PN		t	#			#		4		28				32	
	ŀ	2. AP	PN SO	CN		t	#			2		2		9		1		8	
	İ	3. APPN GERMAN			#			#		8		4				0			
			4. PROC LEAD TIME					1IN: 7	,		TIAL C	RDER	21		REC	)RD	ER 2	1	

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ITEM NO. PAGE NO.

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UNCLASSIFIED

CLASSIFICATION

TIME PHASED REQUIREMENTS SCHEDULE		OTHE	R PRC	ATION/E CUREN Γ EQUI	MENT,		AVY / 4				ROL		MENCL AIRFRA 238		ISSILE	FI	EBRUAF	RY 1997
			FY					FY				FY	-			FY		
ACTIVE FORCE INVEN. (OPN)	(81)	1	6	3	4		1	6	3	4	1	2	3	4	1	2	3	4
ACTIVE FORCE INVEN. (OPN) ACTIVE FORCE INVEN. (SCN)	(21)	2	0	1 2	1 2		1	0		¦						1	1	
SCHOOLS/OTHER TRAINING (OPN)	(1)	2 1		1 4	1 4				1	¦			1			1	1	
OTHER (GERMANY)	(43)			1	1				1	¦			1	1		1	1	
TOTAL PHASED REQUIREMENTS	(146)	93	99	103	106		107	113	1113	113	113	1 112	113	1113	112	113	112	1113
ASSETS ON HAND	(140)	93	77	1 103	100		107	113	1 113	1113	113	1113	113	113	113	113	113	113
DELIVERY FY96 AND PRIOR (OPN)	(21)			1	1				1	¦			1			1	1	
DELIVERY FY96 AND PRIOR (GE)	(39)			1	1				1	¦			1	1		1	1	
DELIVERY FY96 AND PRIOR (SCN)	(4)			1	1				1	¦			1	1		1	1	
FY95 (GE)	(4)			1	1				1	¦			1	1		1	1	
FY95 (US OPN)	(9)			1	1				1	¦			1	1		1	1	
FY96 (US OPN)	(6)			1	1				1	¦			1	1		1	1	
FY96 (US SCN)	(2)			1	1				1	¦			1	1		1	1	
FY97 (US OPN)	(5)			1	1				1	; I						1	1	
FY97 (US SCN)	(1)			1	1				i I	; I						1	i	
FY98 (US OPN)	(9)		6	1 2	1				1	; I			1	1		1	i	
FY98 (US SCN)	(6)	2	Ü	1 2	1 2				1	; I			1	1		1	1	
FY99 (US OPN)	(7)	2		1 2	1 2		1 '	6	1	¦			1	1		1	1	
FY01 (US OPN)	(0)			1	1		C I	. 0	1	¦			1	1		1	1	
FY02 (US OPN)	(6)			1	1		3		1	¦	s		1	1		1	1	
FY02 (US SCN)	(6)			1	1				1	¦	S		1	1		1	1	
FY03 (US OPN)	(6)	1		1	1				1	¦	3		1		c	1	1	
	(13)			1	1				1	¦			1	1	3	1	1	
Beyond FYDP (US OPN)		1		1	1				1	¦			1			1	1	
Beyond FYDP (US SCN)	(2)	02	00	1.00	106		107	112	112	112	112	112	1112	1112	112	112		112
TOTAL ASSETS	(146)	93	99	103			107				113			113		113		113
QUANTITY OVER (+) OR SHORT (-)		0	0	0	0	+	0	0	0	0	0	0	0	0	0			0
D. REMARKS:		E.	RQM	T (QTY)		D	TOTA EQUIR		INSTA	LIED		ON HAND	DDI	FY98 OR UNI			799 & O TUNDEI	
	ŀ	1. AP	PN . O	PN		K		#	INSTA	#	+	4	1 1/1	28	) 15 L	UNI	32	
	ŀ	2. AP				t		#		4	+	0		9			8	
				SERMA	N	t		#		#		8		4		1	0	
4. PROC LEAD TIME						t		MIN: 7	,		TAL O	_	21		REOI	RDER		

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**UNCLASSIFIED** 

CLASSIFICATION

## CLASSIFICATION

#### **FEBRUARY 1997**

														NOANT 13	
APPROPR	RIATI	ON/BUDGE	ET ACT	IVITY				P-1 ITEM	NOM	ENCLATU	RE				$\neg$
OTHER	PRO	CUREM	ENT,	NAVY/	4										
ORDNA	NCE	SUPPO	RT E	QUIPME	NT			RAM GI	MLS	5238					
1 st Q	TR	2 nd Q	TR	3 rd C	QTR	4 th Q	TR	1 st Q	TR	2 nd Q	TR	3 rd Q	TR	4 th Q	TR
E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY
	FY 96										FY	97			
TRAINER	1	LHD 3	2	LHD 1	2	DD 972	1	DD 973	1	LSD 44	2	LHD 2	2	DD 997	1
		LHD 6 (SCN)	2	LSD 48	2							LSD 42	2		
		,		DD 987	1							LSD 49	2		
			FY 9	8							FY 9	9			
DD 982	1			LSD 45	2	LSD 51	2	DD 977	1	DD 989	1	DD 978	1		
LHD 4	2			LHD 7 (SCN)	2			LSD 52 (SCN)	1			LSD 46	2		

Exhibit P-23a DD Form 24475, JUN 86

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ITEM NO. PAGE NO.

**UNCLASSIFIED** 153 **CLASSIFICATION** 9

CLASSIFICATION

#### **FEBRUARY 1997**

APPROPR	RIATI	ON/BUDGE	ET ACT	IVITY				P-1 ITEM	NOM	IENCLATU	RE			- <del></del>	
OTHER	PRO	CUREM	ENT,	NAVY/	4										
ORDNA	NCE	SUPPO	RT E	QUIPME	NT			RAM GI	MLS	5238					
1 st Q	TR	2 nd C	TR	3 rd C	QTR	4 th Q	TR	1 st C	TR	2 nd C	TR	3 rd Q	TR	4 th Q	TR
E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY	E.I./L.	QTY
			FY 0	0							FY 01				
CVN 68 (SCN)	2	LSD 50	2	LSD 41	2	DD 967	1	DD 985	1	LSD 43	2				
(00.1)		CVN 70	2	LPD 17 (SCN)	2	CVN 76 (SCN)	2			LSD 47	2				
		CVN 71	2	,		. ,				DD 992	1				
										DD 988	1				
			<u> </u>									•			
		1	FY 0	2						1	FY 0	3			1

Exhibit P-23a DD Form 24475, JUN 86

> P-1 SHOPPING LIST ITEM NO. PAGE NO.

**UNCLASSIFIED** 10 CLASSIFICATION

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		BUDGET IT	TEM JUSTII	FICATION S	HEET		DATE: FEBRUARY	1997
APPROPRIATION OTHER PROCUM			SUPPORT E	EQUIPMENT	P-1 ITEM NOI SHIP SELF DEFI BLI: 5239 SUE			
	1996	1997	1998	1999	2000	2001	2002	2003
QUANTITY								
COST (In Millions)	\$15.3	\$19.2	\$5.8	\$22.7	\$59.7	\$65.8	\$67.5	\$65.9

SHIP SELF DEFENSE SYSTEM (SSDS) - Funds are requested to procure an evolutionary Ship Self Defense System (SSDS) for non-AEGIS ships. The Ship Self Defense System is a coordinated engineering approach to improve ship self defense utilizing existing and planned defensive systems in Navy ships. The program coordinates the efforts of diverse acquisition programs that are in varying stages of programmatic maturity, most of which have products already in the fleet. A two phase evolutionary acquisition program structure defined in the AN/SYQ-17 Rapid Anti-Ship Missile Integrated Defense System Operational Requirement 240-03-89 identifies the rapid delivery of an automated anti-ship missile defense tactical decision aid for surface combatants, SSDS MK 0, followed by an evolutionary program to integrate sensors and automate engagement sequences of hardkill and softkill systems. The latter phase is identified as SSDS MK 1.

SSDS MK 0 - Rapid Anti-Ship Missile Integrated Defense System (RAIDS) using ruggedized personal computer workstations and an ETHERNET LAN, it provides decision support to weapons systems operators and managers using data from AN/SLQ-32 and CIWS radar. The MK 0 is designated for use on 25 DD 963 Class and FFG 7 Class. The DD 963 systems were budgeted in FY 93 funding for AN/SLQ-32. A DD 963 MK 0 contract was awarded 12 May 1994. The FY 94 Point Defense budget procured MK 0 systems for sixteen FFG 7 Class ships. The FFG 7 SSDS MK 0 contract awarded 7/95. There are no procurements planned after FY 94. The installation agent for the SSDS MK 0 is NSWC Port Hueneme with installations planned via Alteration Installation Team (AIT). Sixteen installations are scheduled for FY 97.

SSDS MK 1 - The Ship Self Defense System MK 1 implements the second phase of an evolutionary acquisition of improved ship self defense capabilities against anti-ship cruise missiles for selected non-AEGIS ships by integrating existing and programmed anti-air warfare stand-alone systems and thereby providing an automated quick reaction and multi-target engagement capability emphasizing performance in the littoral environment. Integration will focus on coordinating existing sensor information, providing threat identification and evaluation, assessing defensive readiness, and recommending an optimized defensive tactical response to counter single and multiple anti-ship cruise missile attacks. Subsequent modifications will require replacement of commercial-off-the-shelf (COTS) equipment and optimize the Ship Self Defense System, providing enhanced self defense capabilities while allowing for insertion of advanced technologies during Engineering and Manufacturing Development and Production Deployment Phases. System design emphasizes use of non-developmental items and commercial standards. Development testing started May 1996 with operational testing to follow in March 1997. Hughes Aircraft Co., San Diego CA, is the system design agent. Prior, current and budget year RDT&E funding for Hughes are \$27,385K, \$12,766K, and \$13,443K, respectively. JHU/APL, Laurel MD, is the technical design agent. Prior, current, and budget year RDT&E funding for JHU/APL are \$6,298K, \$1,824K, and \$1,693K, respectively. SSDS MK 1 is planned for installation on LSD 41-52, LHD 1-7, LHA 1-5, LPD 17- 28 and CV/N 63, 65, 67-76. The installation agent for SSDS MK 1 is NSWC Port Hueneme with installations planned via AIT.

BUDGET ITEM JUSTIFICATION S P-40	SHEET	DATE: FEBRUARY 1997
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURI	
OTHER PROCUREMENT, NAVY/4 ORDNANCE SUPPORT EQUIPMENT	BLI: 5239 SUBHEAD: 14UQ	OOD O, WILL T
Three units were procured in FY 96 with installation in FY 97. Remaining installations will st for installation at the In-Service Engineering Agent, NSWC Port Hueneme Division in FY 00; FY 01; and Training Units at FCTCPAC in FY 01. The budget reflects the transfer of design accordance with full funding policy FY98 and out.	the Software Support Agent, NSW	/C Dahlgren Division in

	INDATION.	WEAP		STEM COST A	ANAL	rsis			DATE: FEBRUA	ARY 1997
	PRIATION/BUDGET ACTIVITY			SHIP SELF DE		TURE/SUBHEA SYSTEM (SSI		1		
OTHER	PROCUREMENT, NAVY/4 ORDNANCE SUP	PORT	EQUIP			D: 14UQ	ICAND	C OF DOLL AD		
					IOIAL	COST IN THOU	JSAND	S OF DOLLARS	•	
COST	ELEMENT OF COST	IDENT CODE		FY 1996		FY 1997		FY 1998		FY 1999
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
UQ001	SSDS MK 1	В	3	11,304	0	0	0	0	5	14,859
UQ002	SSDS PRODUCTION SUPPORT			3,578		7,255		0		3,299
UQ003	SSDS ECP			0		0		0		1,992
UQ004	SSDS TRAINING			0		2,113		0		1,361
UQ005	SSDS COTS REPLACEMENT			0		0		0		0
UQ009	SSDS - CSS			405		198		0		543
UQ355	SSDS MK 1 EQUIPMENT INSTALL (FMP)			21		8,195		1,802		619
UQ6IN	EQUIPMENT INSTALL (NON-FMP)			0		1,478		3,684		0
UQDSA	DESIGN AGENT			0		0		357		0
	- TOTAL			15,308		19,239		5,843		22,673
	1	ı								

**DD FORM 2446, JUN 86** 

P-1 SHOPPING LIST ITEM NO. 154 PAGE NO. 3

## **CLASSIFICATION:**

# **UNCLASSIFIED**

			BUDGET P	ROCUREMEN	T HISTOR	Y AND PI	ANNING			DATE	
				<b>EXHIBIT P-5A</b>						<b>FEBRUAR</b>	RY 1997
APPRO	PRIATION/BUDGET ACTIVI	TY					NCLATUI			SUBHE	AD
OTLIED	DDOOLIDEMENT NAVAWA ODD	NAMOE OUDDODE FOI	UDMENT				NSE SYST	EM (SSDS	) MK 1		
OTHER	PROCUREMENT, NAVY/4 ORD	NANCE SUPPORT EQU			BLI: 523					14UQ	
COST	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
UQ001	FY 96 SSDS MK 1 LSD FY 99 SSDS MK 1 LSD LHD	HUGHES 3970 Sherman St San Diego CA 92110  HUGHES 3970 Sherman St San Diego CA 92110	FFP FFP	NAVSEA NAVSEA NAVSEA	9/96 1/99 1/99	3/97 11/99 11/99	3 1	2,797 3,181 3,616	YES YES YES	NO NO NO	N/A N/A N/A
5-114											

## REMARKS

Unit Cost is dependent on ship class configuration and will vary.
FY 96 LSD deliveries require 6 months lead time due to System Design Agent's (Hughes) commitment to meet the Navy's scheduled Shipalts.

**DD Form 2446, JUL 87** 

P-1 SHOPPING LIST **ITEM NO. 154** PAGE NO. 4 **CLASSIFICATION:** 

INDIVIDUAL MODIFICATION DATE: FEBRUARY 1997

MODIFICATION TITLE: POINT DEFENSE SYSTEM

MODELS OF SYSTEM AFFECTED: SHIP SELF DEFENSE SYSTEM (SSDS) MK 0

**DESCRIPTION/JUSTIFICATION:** Provides decision support to weapons systems operators and managers, using data from AN/SLQ-32 and CIWS radars. Employs ruggedized personal computer

based workstations and an ETHERNET LAN. Designated for interim use on DD 963 and FFG-7 Class ships.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Milestone IV decision ASN (RD&A) approved July 1995.

FINANCIAL PLAN (IN MILLIONS)		FY9 QTY &PRIO		FY 97	QTY FY 98	QTY FY 99	QTY FY 00	QTY FY01 Q	TY FY 02 Q	TY FY03	TO COMP		TOTAL COST
RDT&E													
PROCUREMENT		16 7.2											7.2
QUANTITY		16										16	
INSTALLATION KITS		. •											
INSTALLATION KITS NONRECURRING													
EQUIPMENT		16 7.2										16	7.2
EQUIPMENT NONRECURRING		16 7.2										10	1.2
ENGINEERING CHANGE ORDERS													
UNIT COST DATA		0.5											
TRAINING EQUIPMENT													
SUPPORT EQUIPMENT													
OTHER													
INTERIM CONTRACTOR SUPPORT													
INSTALLATION OF HARDWARE													
FY95 EQUIPMENT & PRIOR			16	1.4								16	1.4
FY96 EQUIPMENT													
FY97 EQUIPMENT													
FY98 EQUIPMENT													
FY99 EQUIPMENT													
FY00 EQUIPMENT													
FY01 EQUIPMENT													
TO COMPLETE													
TOTAL INSTALLATION COST				1.4								16	1.4
TOTAL PROCUREMENT COST				0.0									7.2
TOTAL PROCUREMENT COST				1.4									8.6
CONTRACT DATE: PRODUCTION DELIVER DATE:	Team/AIT	PRIOR YEAR: PRIOR YEAR:			ADMINISTRATI CURRENT YEA CURRENT YEA	R: N/A	BUDGET YE. BUDGET YE.	AR: N/A	N LEADTIME: BUDGET Y BUDGET Y		N/A N/A		
INSTALLATION SCHEDULE:													
INPUT =====>	FY96	FY9	7	FY98	FY99	FY00	FY01	FY02	FY03	TC			
	1, 2, 3, 4	1, 2, 3	, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	TOTA	L	
FY 96 & PRIOR		3, 4, 3									16		
FY 97		. ,											
FY 98													
FY 99													
FY 00													
FY 01													
FY 02													
FY 03													
TO COMPLETE													
TOTAL		3, 4, 3	6								16		
TOTAL		0, 4, 0	, 0										
OUTPUT ====>	FY96 1, 2, 3, 4	FY9 1, 2, 3		FY98 1, 2, 3, 4	FY99 1, 2, 3, 4	FY00 1, 2, 3, 4	FY01 1, 2, 3, 4	FY02 1, 2, 3, 4	FY03 1, 2, 3, 4	TC 1, 2, 3, 4		<u>L</u>	
FY 96 & PRIOR		3, 4, 3	, 6								16		
FY 97													
FY 98													
FY 99													
FY 00													
FY 01													
FY 02													
FY 03													
TO COMPLETE													
TOTAL											16		
TOTAL													

Exhibit P-3A

3, 4, 3, 6

**FINANCIAL PLAN (IN MILLIONS)** 

#### INDIVIDUAL MODIFICATION

MODIFICATION TITLE: POINT DEFENSE SYSTEM

MODELS OF SYSTEM AFFECTED: SHIP SELF DEFENSE SYSTEM (SSDS) MK 1

DESCRIPTION/JUSTIFICATION: Implements an evolutionary acquisition of improved ship self defense capabilities against anti-ship cruise missiles for selected non-AEGIS ships by integrating existing

and programmed anti-air warfare stand-alone systems. It provides an automated quick reaction and multi-target engagement capability emphasizing performance in the littoral environment. Integration focuses on coordination existing sensorexisting sensor information, providing threat identification and evaluation, assessing defensive readiness,

QTY &PRIOR QTY FY97 QTY FY98 QTY FY99 QTY FY00 QTY FY01 QTY FY02 QTY FY03 QTY COST QTY COST

and recommending optimized defensive tactical response to counter single and multiple anti-ship cruise missile attacks.

FY96

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Milestone III decision pending ASN (RD&A) approval.

		_																		
RDT&E		7	106.3																7	106.3
<u>PROCUREMENT</u>																				
QUANTITY		3	11.3	0	0.0	0	0.0	5 14.	9	27.0	9	28.6	6	27.3	3	22.7			35	131.8
INSTALLATION KITS																				
INSTALLATION KITS NONRECURRIN	IG (COTS REPLACEMENT)		0.0		0.0		0.0	0.0		3.3		2.8		2.9		0.8		10.0		
EQUIPMENT		3	11.3	0	0.0	0	0.0	4 13.	2 6	21.9	9	28.6	6	27.3	3	22.7			31	125.0
EQUIPMENT NONRECURRING																				
ENGINEERING CHANGE ORDERS			0.0		0.0		0.0	2.0		2.9		3.6		3.3		8.1		7.6		19.9
UNIT COST DATA			15.2					3.0		3.0		3.2		4.6		7.6				
TRAINING EQUIPMENT									2	3.4									2	3.4
SUPPORT EQUIPMENT								1 1.7	1	1.7									2	3.4
OTHER			4.0		9.6		0.0	5.2		10.8		10.8		7.9		8.3		4.2		56.6
INTERIM CONTRACTOR SUPPORT																			35	208.2
INSTALLATION OF HARDWARE*																				
FY96 EQUIPMENT & PRIOR		0	0.02	2	9.7														2	9.7
FY97 EQUIPMENT						1	5.8												1	5.8
FY98 EQUIPMENT								0 0.6											0	0.6
FY99 EQUIPMENT									5	16.8									5	16.8
FY00 EQUIPMENT											9	19.4							9	19.4
FY01 EQUIPMENT											-		9	26.1					9	26.1
FY02 EQUIPMENT													•		6	19.1			6	19.1
FY03 EQUIPMENT															•		3	10.5	3	10.5
TO COMPLETE																	٠	10.0	•	10.5
TOTAL INSTALLATION COST			0.0		9.7		5.8	0.6		16.8		19.4		26.1		19.1		10.5	35	108.1
TOTAL PROCUREMENT COST			15.3		9.6		0.0	22.		44.0		45.8		41.4		39.9		21.8		239.8
TOTAL PROCUREMENT COST			15.3		19.2		5.8	22.		60.8		65.2		67.5		59.0		32.3		347.9
TOTAL COST			13.3		13.2		5.0	22.		00.0		03.2		07.5		33.0		32.3		347.3
	AIT/Shipyard							LEADTIME		4 Months			TION L	EADTIME	:	6 Months	;		SITEMI	
METHOD OF IMPLEMENTATION: CONTRACT DATE: Sep-96 PRODUCTION DELIVER DATE:	AIT/Shipyard Apr-97			Sep-96 Apr-97		CURR	IISTRATIVI ENT YEAR ENT YEAR	Jan-97	BU	4 Months DGET YEAR DGET YEAR	₹:	Jan-98 N/A	TION L		: YEAR	2:				
CONTRACT DATE: Sep-96						CURR	ENT YEAR	Jan-97	BU	DGET YEAR	₹:	Jan-98	TION L	EADTIME. BUDGET	: YEAR	2:	Jan-99			
CONTRACT DATE: Sep-96 PRODUCTION DELIVER DATE:					FY98	CURR	ENT YEAR	Jan-97	BU an 9 BU	DGET YEAR	₹:	Jan-98	TION L	EADTIME. BUDGET	: YEAR	2:	Jan-99			
CONTRACT DATE: Sep-96 PRODUCTION DELIVER DATE: INSTALLATION SCHEDULE:	Apr-97 <b>FY96</b>	PRIOR	FY97			CURR	ENT YEAR ENT YEAR FY99	Jan-97 Jul 97/J	BU an 9 BU	DGET YEAI DGET YEAI FY01	₹: ₹:	Jan-98 N/A FY02	TION L	EADTIME BUDGET BUDGET FY03	: YEAR	2: 2: TC	Jan-99 Jan-00	TOTAL	·	
CONTRACT DATE: Sep-96 PRODUCTION DELIVER DATE: INSTALLATION SCHEDULE: INPUT ======>	Apr-97  FY96  1, 2, 3, 4	PRIOR	FY97 1, 2, 3, 4		FY98 1, 2, 3, 4	CURR	ENT YEAR ENT YEAR	Jan-97 Jul 97/J	BU an 9 BU	DGET YEAI DGET YEAI	₹: ₹:	Jan-98 N/A	TION L	EADTIME BUDGET BUDGET	: YEAR	2: 2:	Jan-99 Jan-00		·	
CONTRACT DATE: Sep-96 PRODUCTION DELIVER DATE: INSTALLATION SCHEDULE: INPUT ======> FY 96 & PRIOR	Apr-97 <b>FY96</b>	PRIOR	FY97		1, 2, 3, 4	CURR	ENT YEAR ENT YEAR FY99	Jan-97 Jul 97/J	BU an 9 BU	DGET YEAI DGET YEAI FY01	₹: ₹:	Jan-98 N/A FY02	TION L	EADTIME BUDGET BUDGET FY03	: YEAR	2: 2: TC	Jan-99 Jan-00	TOTAL 2 1	·	
CONTRACT DATE: Sep-96 PRODUCTION DELIVER DATE: INSTALLATION SCHEDULE: INPUT ======> FY 96 & PRIOR FY 97	Apr-97  FY96  1, 2, 3, 4	PRIOR	FY97 1, 2, 3, 4			CURR	FY99 1, 2, 3, 4	Jan-97 Jul 97/J	BU an 9 BU	DGET YEAI DGET YEAI FY01	₹: ₹:	Jan-98 N/A FY02	TION L	EADTIME BUDGET BUDGET FY03	: YEAR	2: 2: TC	Jan-99 Jan-00	2 1	·	
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P-1 SHOPPING LIST ITEM NO. 154 PAGE NO.6

CLASSIFICATION: UNCLASSIFIED

DATE: FEBRUARY 1997

TO COMP TOTAL TOTAL

## **CLASSIFICATION:**

## **UNCLASSIFIED**

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P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO. 154 PAGE N( 7

## CLASSIFICATION: U

## **UNCLASSIFIED**

						D REQUIRE T SHEET-IN P-23A	ISTAL						<b>DATE</b> Febru	ary 1997	
				T ACTIV		SUPPORT E				MENCLAT		SDS) MK 1	- 5230		
1ST		2ND		3RD (		4TH QT		1ST QTR		2ND C	•	3RD (		4TH Q	TR
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
	<u> </u>		FY	1996	1						FY	1997			
										LSD 44	1	LSD 42 LSD 49	1 1		
			FY	1998							FY	1999			
				LSD 45	1									ISEA NON-FMP	1

P-1 SHOPPING LIST ITEM | 154 PAGE N( 8

**CLASSIFICATION:** 

#### PEO/DRPM CONTROLLED RESOURCES

			BUDGET ITEM JU	STIFICATION SHE	EET			<b>DATE:</b> February 1997					
	ROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4: ORDNANCE SUPPORT EQUIPMENT  P-1 ITEM NOMENCLATURE AEGIS SUPPORT EQUIPMENT - 524600/524605												
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003					
QUANTITY													
COST (\$M) TOTAL	61.9	32.7	26.8	46.5	72.0	67.5	76.8	77.6					

#### Item Description/Justification

- 1. This program provides equipments for shore facilities and for shipboard upgrades to support the battle readiness of AEGIS Cruisers and Destroyers in the following areas:
  - a. Special Tooling and Test Equipment for AEGIS unique depots;
  - b. Computer, displays and simulators for the AEGIS Computer Center (ACC) at Dahlgren, Va.;
  - c. Weapon/Combat System equipments for the AEGIS Combat System Center (ACSC) at Wallops Island, Va.;
  - d. Weapon System Training equipment for the AEGIS Education Center (AEC) at Dahlgren, Va.;
  - e. AEGIS Weapon System ORDALT procurement;
  - f. AEGIS Weapon System SHIPALT procurement;
  - g. AEGIS Common Equipment to support shorter Regular Overhauls and Selected Restricted Availabilities. Includes Weapon and Ship System components that require long repair turn-around;
  - h. Field Activity Integrated Communications Equipment;
  - i. Warfighting Improvement Program (WIP) alteration equipment;
     Provides UYK-43 (LoBoy) computers, COTS Computer and other SHIPALT equipment for baseline 3 Cruisers; and;
  - j. Warfighting Improvement Program (WIP) alteration equipment, Baseline 2 Upgrade and COTS Computer and Consoles;
  - k. Engineering Control and Surveillance Equipment (ECSE);
  - 1. Shipboard equipment Installation.
- 2. The FY 1996-03 funds will be used to upgrade three centers (AEGIS Computer Center, AEGIS Education Center and AEGIS Combat Systems Center) to properly accommodate CG 47 and DDG 51 Combat System Baselines and to provide shipboard SHIPALT and ORDALT equipments for four CG 47 Class Cruiser Baselines and two Destroyer Baselines. Funding is for the installation of equipment including the Fleet Modernization Program, training equipment, and other shore facilities. These include, among others, the following major Weapon/Combat systems:
- 3. The budget reflects the transfer of design services into the appropriate equipment P-1 line item in accordance with full funding policy FY 98 and out.

	BUDGET ITEM JUSTIFICATION SHEET (EXHIBIT P-40 cont.)	(CONTINUATION)	<b>DATE:</b> February 1997
PPROPRIATION/BUDGET ACTIVITY	P-1 ITEM	NOMENCLATURE	
THER PROCUREMENT, NAVY, BA-4: ORDNA	NCE SUPPORT EQUIPMENT AEGIS SI	UPPORT EQUIPMENT - 524600	
	DESCRIPTION	APPLICABLE	
o CG BASELINE 1	- SPY-1A RADAR	CG 47 - CG	51
	- AEGIS DISPLAY SYSTEM MARK 1		
	- MARK 26 LAUNCHING SYSTEM		
	- LAMPS MARK III HELICOPTER		
	- MK 116 MOD 4 UNDERWATER FIRE CONTROL		
	- UYK-7/20 COMPUTERS		
	- UYA-4 DISPLAYS		
	- MK 86 GUNFIRE CONTROL SYSTEM		
o CG BASELINE 2	- CG BASELINE 1 PLUS	CG 52 - CG	58
	- TOMAHAWK WEAPON SYSTEM		
	- ANTI-SUBMARINE WARFARE UPGRADE SQQ-8	39	
	- MK 41 VERTICAL LAUNCH SYSTEM IN PLACE	OF MK 26	
	- BACKFIT COMPUTERS/AN/UYQ-70 DISPLAYS		
	- ECSE UPGRADE/COTS COMPUTER		
o CG BASELINE 3	- CG BASELINE 2 PLUS	CG 59 - CG	64
	- SPY-1B RADAR IN PLACE OF SPY-1A		
	- UYQ-21 DISPLAYS IN PLACE OF UYA-4		
	- BACKFIT UYK-43 (LoBoy)/44 COMPUTERS		
	- ECSE UPGRADE/COTS COMPUTER		
o CG BASELINE 4	- CG BASELINE 3 PLUS	CG 65 - CG	73
	- VERTICAL LAUNCH ASROC		
	- SM-2 MISSILE UPGRADE		
	- UYK 43/44 COMPUTERS IN PLACE OF UYK-7/20	)s	
	- ECSE UPGRADE/COTS COMPUTERS		
o DDG BASELINE 4	- CG BASELINE 3 PLUS	DDG 51 - D	DG 67
	- SPY-1D RADAR IN PLACE OF SPY-1B		
	- MK 160 GUN COMPUTING SYSTEM IN PLACE O	OF MK 86	
	- UYK 43/44 COMPUTERS IN PLACE OF UYK-7/20		
o DDG BASELINE 5	- DDG BASELINE 4 PLUS	DDG 68 - D	DG 76
	- JOINT TACTICAL INFORMATION DISTRIBUTIO		
	COMMAND AND CONTROL (C2P)		
	- TADIL J		
	- COMBAT DIRECTION FINDING (DF)		
	- TACTICAL DATA INFORMATION EXCHANGE S	YSTEM (TADIX B)	
	- AN/SLQ-32(V) 3 ACTIVE ELECTRONIC COUNTE	RMEASURES (ECM)	
	- AEGIS EXTENDED RANGE (ER) MISSILE	. ,	
form 2454, JUN 86	P-1 SHOPPING LIST	·	Exhibit P-40

DD form 2454, JUN 86 P-1 SHOPPING LIST Exhibit P-40

BUDGET ITEM JUSTIFICATION SHEET (CONTINUATION)

(EXHIBIT P-40 cont.)

DATE:
February 1997

APPROPRIATION/BUDGET ACTIVITY

P-1 ITEM NOMENCLATURE

OTHER PROCUREMENT, NAVY, BA-4: ORDNANCE SUPPORT EQUIPMENT

AEGIS SUPPORT EQUIPMENT - 524600/524605

3. PLANNED MODIFICATIONS

3a. MODIFICATION TITLE: AEGIS CRUISER, BASELINE 3, ENGINEERING BASE UPGRADE.

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

DESCRIPTION/JUSTIFICATION:

The Baseline 3 upgrade provides major performance enhancements in the areas of force command, Anti-Air Warfare (AAW), and Strike Warfare (STW) which are required to meet Navy Force Level warfare ojectives. The upgrade provides the required computing and display capability to accommodate Cooperative Engagement Capability (CEC), Theater Ballistic Missile Defense TBMD, JTIDS and SM-2 Block IV missiles.

FY 1996 & PRIOR	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
\$152.2	\$10.3	\$7.3	\$15.4	\$8.6	\$0.0	\$0.0	\$0.0

#### **3b. MODIFICATION TITLE:**AEGIS WEAPON SYSTEM ORDNANCE ALTERATIONS (AWS ORDALTS)

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

DESCRIPTION/JUSTIFICATION: MISCELLANEOUS AEGIS WEAPON SYSTEM ORDALTS (CG/DDG).

This program provides for procurement and installation of emerging fact-of-life and safety modifications to the AEGIS Weapon System (AWS). These requirements will continue through the life of the Ships.

FY 1996 & PRIOR	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
\$26.4	\$5.2	\$4.4	\$8.0	\$8.6	\$9.5	\$9.4	\$10.0 ·

DD form 2454, JUN 86 P-1 SHOPPING LIST Exhibit P-40

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# BUDGET ITEM JUSTIFICATION SHEET (CONTINUATION) (EXHIBIT P-40 cont.) APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATURE

3c. MODIFICATION TITLE: AEGIS WEAPON SYSTEM SHIP ALTERATIONS (AWS SHIPALTS)

OTHER PROCUREMENT, NAVY, BA-4: ORDNANCE SUPPORT EQUIPMEN

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

DESCRIPTION/JUSTIFICATION: MISCELLANEOUS AEGIS WEAPONS SYSTEM SHIPALTS (CG/DDG).

This program provides for procurement and installation of emerging fact-of-life, and safety modifications to the AEGIS Weapon System (AWS), including alterations which are prerequisite to AWS interoperability/compatability with other systems (TBMD/JTIDS/CEC/Tomahawk). These requirements will continue through the life of the Ships. These SHIPALTS vary in scope and will be installed by Alteration Installation Teams and Public or Private Shipyards.

AEGIS SUPPORT EQUIPMENT - 524600/524605

FY 1996 & PRIOR	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
\$0.0	\$6.2	\$6.0	\$9.2	\$24.6	\$23.0	\$20.9	\$20.0

3d. MODIFICATION TITLE: AEGIS WEAPON SYSTEM, DESIGN SERVICE ALLOCATION (DSA).

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

DESCRIPTION/JUSTIFICATION:

This funds the planning yards to develop work packages to support the upgrades procured by this account.

FY 1996 & PRIOR	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
\$0.0	\$0.0	\$4.2	\$6.8	\$4.0	\$5.4	\$4.2	\$6.7

DD form 2454, JUN 86 P-1 SHOPPING LIST Exhibit P-40

#### PEO/DRPM CONTROLLED RESOURCES

Note: FY 97 ...

WEAPON SYSTEM COST ANALYSIS			V/BUDGET	B. WEAPON	C/DODIII A	D NAME.		FACTURER NA	ME	D:DATE
EXHIBIT (P-5)		IE NO. CURMENT, NA SUPPORT EQ		MODEL/SERIES AEGIS SUPPOR			LOCATIO	TY/STATE ON: (See P-5A)		February 1997
	ORDIVANCE	SOTT ORT EQ	OH WILIVI			OST IN THOU		1		
WEAPON SYSTEM COST ELEMENTS	COST	IDENT	FY		FY		FY		FY	99
(1)	CODE	CODE	QTY	TOTAL COST	QTY	TOTAL COST	~	TOTAL COST	QTY	TOTAL COS
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
DEPOT SPECIAL TOOLING AND TEST EQUIPMEN	L7001	A		1,900		500		1,918		1,500
WEARABLE COMPUTER	L7002	A		0		3,000		0		0
AEGIS COMPUTER CENTER EQUIPMENT	L7003	A		500		3,238		409		1,364
AEGIS COMBAT SYSTEM CENTER EQUIPMENT	L7006	Α		500		1,985		728		2,762
AEGIS EDUCATION CENTER EQUIPMENT	L7007	A		944		1,000		373		909
AEGIS WEAPON SYSTEM ORDALTS	L7010	A		3,000		3,341		3,334		3,000
AEGIS WEAPON SYSTEM SHIPALTS	L7011	A		0		5,200		5,215		7,361
AEGIS COMMON EQUIPMENT	L7013	A		1,953		1,589		1,697		485
FIELD ACT'Y INTEGRATED COMM EQPT	L7016	A		438		305		178		438
AEGIS WIP ALTERATION EQUIPMENT B/L 3	L7017	A		40,530		0		0		С
PROCUREMENT SUB-TOTAL				49,765		20,158		13,852		17,819
DESIGN SERVICE ALLOCATION (DSA)	L7DSA	A		0		0		4,255		6,782
INSTALLATION OF EQUIPMENT, FMP	L7600	A		12,095		12,543		8,706		21,947
TOTAL				61,860		32,701		26,813		46,548
-			P-	1 SHOPPING LIS	ST					Exhibit P-5

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		BUDGET PROCUREMI	ENT HISTOR	Y AND PLANNIN	G EXHIB	IT (P-5A)				A: DATI Februar	
	ROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY, BA-4: OI	RDNANCE SUPPORT EG	QUIPMENT				NCLATURE PPORT EQUI	PMENT		i ebiuai	y 1997
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY		DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (\$000)	SPECS AVAILABLE NOW	SPECS REV REQ'D	IF YES, WHEN AVAILABLE
L7002	Wearable Computer FY 1997	CDI Bloomington, MN 55431	BOA	NAVSEA	TBD*	TBD*	N/A	\$3,000	YES	NO	-
L7003	AEGIS COMPUTER CENTER EQUIPMENT ACCIS COMPONENTS FY 1996 CABLE	Various UNICOR	SS/FP SS/FP	NAVSEA NAVSEA	3/96 3/97	11/96 1/99	1 LOT	500 750	YES YES	NO NO	-
	FY 1997 COMBAT SYSTEMS COMPONENTS	Memphis, TN 38134  VAR	TBD	NSWC/DD	5/97	2/99	1 LOT	1,188	YES	NO NO	
	FY 1997  CP MODERNIZATION FY 1997	DEC Greenbelt, MD 20770	SS/FP	NSWC/DD	4/97	1/99	1 LOT	800	YES	NO	-
	C-SCA NETWORK FY 1997	DEC Greenbelt, MD 20770	SS/FP	NSWC/DD	4/97	1/99	1 LOT	500	YES	NO	-
	COMMERCIAL SYSTEM COMPONENTS FY 1998	VAR	TBD	NSWC/DD	5/98	2/00	1 LOT	409	YES	NO	-
	CABLE FY 1999	UNICOR Memphis, TN 38134	SS/FP	NAVSEA	3/99	1/01	1 LOT	1364	YES	NO	-
	AEGIS COMBAT SYSTEM CENTER EQPT NON-TACTICAL EQUIPMENT FY 1996	VAR	TBD	NSWC/DD	2/96	12/96	1 LOT	500	YES	NO	-
	COMBAT SYSTEM COMPONENTS FY 1997	VAR	TBD	NSWC/DD	2/97	12/97	1 LOT	985	YES	NO	-

P-1 SHOPPING LIST PAGE NO ITEM NO. 6

	BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									<b>A: DATE:</b> February 1997	
B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY, BA-4: ORDNANCE SUPPORT EQUIPMENT						C. P-1 ITEM NOMENCLATURE AEGIS SUPPORT EQUIPMENT					
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY		DATE OF	QUANTITY	UNIT COST (\$000)	SPECS AVAILABLE NOW		IF YES, WHEN AVAILABL
	AEGIS COMBAT SYSTEM CENTER EQPT UYH-16 FY 1997	CDI Bloomington, MN 55431	BOA	NAVSEA	2/97	12/97	1 LOT	1,000	YES	NO	-
	NON-TACTICAL EQUIPMENT FY 1998	VAR	TBD	NSWC/DD	2/98	12/98	1 LOT	728	YES	NO	-
	EQUIPMENT MODERNIZATION FY 1999	VAR	TBD	NSWC/DD	2/99	12/99	1 LOT	2,762	YES	NO	-
D. REM	AEGIS EDUCATION CENTER EQUIPMENT CAST PART TASK TRAINER/EMULATOR FY 1996	NOS/IH Indian Head, MD 20640	WR	CO ATC/DL	1/96	1/98	1 LOT	259	YES	NO	-
	STD TRAINING ACTIVITY SUPT SYS (STASS FY 1996	CNET PENSACOLA	WR	CO ATC/DL	1/96	2/97	1 LOT	685	YES	NO	-
	FAULT INSERTION DEVICES (FIDS) FY 1997	HUGHES Fullerton, CA 92634	BOA	NAVSEA	4/97	1/98	1 LOT	175	YES	NO	-
	CAST PART TASK TRAINER/EM FY 1997	HUGHES Fullerton, CA 92634	BOA	NAVSEA	4/97	1/98	1 LOT	425	YES	NO	-
	COMBAT SYSTEM COMPONENTS (CHILLER/COOLER) FY1997	VAR	TBD	NSWC/DD	1/97	1/99	1 LOT	400	YES	NO	-
	CAST PART TASK TRAINER/EMULATOR FY 1998	NOS/IH Indian Head, MD 20640	WR	CO ATC/DL	1/98	1/00	1 LOT	373	YES	NO	-
	COMBAT SYSTEM COMPONENTS FY 1999	CO ATC DL	WR	NAVSEA	1/99	1/00	1 LOT	909	YES	NO	-

D. REMARKS

P-1 SHOPPING LIST PAGE NO ITEM NO. 7

Exhibit P-5A

### BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A) A: DATE: February 1997 B. APPROPRIATION/BUDGET ACTIVITY C. P-1 ITEM NOMENCLATURE OTHER PROCUREMENT, NAVY, BA-4: ORDNANCE SUPPORT EQUIPMENT AEGIS SUPPORT EQUIPMENT CONTRACT DATE OF UNIT SPECS **SPECS** IF YES, COST LINE ITEM/ CONTRACTOR **METHOD** CONTRACTED AWARD FIRST **OUANTITY** COST AVAILABLI REV WHEN CODE FISCAL YEAR AND LOCATION & TYPE BY DATE DELIVERY (\$000)NOW REO'D AVAILABLE L7010 AWS WEAPON SYSTEM ORDALTS DCMC/LM YES O/A 20254, ECP A1438R1 LOCKHEED/MARTIN BOA 3/96 6/96 2 264 NO FY 1996 Moorestown, NJ 08057 LOCKHEED/MARTIN O/A TBD, ECP A1542 BOA DCMC/LM 3/96 3/98 13 23 YES NO FY 1996 Moorestown, NJ 08057 O/A TBD, ECP R1524A1 RAYTHEON BOA DPRO/ 2/96 4/98 2 355 YES NO FY 1996 Burlington, MA 01803 **RAYTHEON** DPRO/ 7 O/A 20278, ECP R1541 RAYTHEON BOA 2/96 48 YES NO 8/96 FY 1996 Burlington, MA 01803 RAYTHEON 2 O/A 20284, ECP R1560A1 RAYTHEON BOA DPRO/ 2/96 11/96 156 YES NO FY 1996 Burlington, MA 01803 RAYTHEON RAYTHEON BOA DPRO/ 2/96 5 O/A 20283, ECP R1546R1 8/96 63 YES NO FY 1996 Burlington, MA 01803 RAYTHEON LOCKHEED MARTIN O/A 20286/20287, ECP A1552 BOA DCMC/LM 7/96 5/97 10 50 YES NO FY 1996 Moorestown, NJ 08057 20259 TBD, ECP R1524A2 RAYTHEON BOA DPRO/ 4/97 333 5/98 3 YES NO FY 1997 Burlington, MA 01803 RAYTHEON LOCKHEED MARTIN O/A 20286/20287, ECP A1552 BOA DCMC/LM 3/97 5/98 10 51 YES NO FY 1997 Moorestown, NJ 08057 RAYTHEON BOA DPRO/ 3/97 22 25 YES NO O/A TBD, ECP A1543 5/98 FY 1997 Burlington, MA 01803 **RAYTHEON** LOCKHEED/MARTIN BOA DCMC/LM 4/97 270 YES O/A 20254, ECP A1438R1 5/98 4 NO FY 1997 Moorestown, NJ 08057 O/A TBD, ECP A1542 LOCKHEED/MARTIN BOA DCMC/LM 3/97 5/98 8 25 YES NO FY 1997 Moorestown, NJ 08057

D. REMARKS

DCMC/LM: Defense Contract Management Command/Lockheed Martin

DPRO: Defense Plant Representative Office

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		BUDGET PROCURE	MENT HIS	TORY AND PLA	NNING EX	KHIBIT (P-	5A)			A: DATE: February 1	997
R APPROP	RIATION/BUDGET ACTIVITY				C P.1 ITE	M NOMEN	ICLATURE	1		1 cordary 1	,,,,
	OTHER PROCUREMENT, NAVY, B.	A-4: ORDNANCE SUPI	ORT EOUI	PMENT	011 1112		PPORT EQU				
	, , , , ,		CONTRAC'			DATE OF		UNIT	SPECS	SPECS	IF YES,
COST	LINE ITEM/			CONTRACTED	AWARD		QUANTIT	COST	VAILABL	REV	WHEN
CODE	FISCAL YEAR	AND LOCATION	& TYPE	BY		DELIVERY		(\$000)	NOW	REQ'D	AVAILABLE
L7010	O/A 20254, ECP A1438R1	LOCKHEED/MARTIN	BOA	DCMC/LM	5/98	6/99	2	276	YES	NO	-
(Continued)	FY 1998	Moorestown, NJ 08057									
	O/A 20286/20287, ECP A1552 FY 1998	LOCKHEED MARTIN Moorestown, NJ 08057	BOA	DCMC/LM	4/98	6/99	10	52	YES	NO	-
	O/A TBD, ECP A1543 FY 1998	RAYTHEON Burlington, MA 01803	BOA	DPRO/ RAYTHEON	4/98	5/99	15	25	YES	NO	-
	20259 TBD, ECP R1524A2 FY 1998	RAYTHEON Burlington, MA 01803	BOA	DPRO/ RAYTHEON	4/98	5/99	3	341	YES	NO	-
	O/A TBD, ECP L1528 FY 1998	Power Paragon Anaheim, CA 92807	BOA	DCMAO/ Santa Ana	2/98	8/98	TBD	864	YES	NO	-
	20259 TBD, ECP R1524A2 FY 1999	RAYTHEON Burlington, MA 01803	BOA	DPRO/ RAYTHEON	5/99	5/00	3	348	YES	NO	-
	O/A 20097, ECP A1335R1C3 FY 1999	RAYTHEON Burlington, MA 01803	BOA	DPRO/ RAYTHEON	2/99	2/00	1 LOT	800	YES	NO	-
	O/A TBD, ECP A1449C2 FY 1999	LOCKHEED/MARTIN Moorestown, NJ 08057	BOA	DCMC/LM	5/99	6/00	1 LOT	700	YES	NO	-
	O/A 20224, ECP R1452R1A1 FY 1999	RAYTHEON Burlington, MA 01803	BOA	DPRO/ RAYTHEON	5/99	5/00	1 LOT	456	YES	NO	-
D. REMARK											
	DCMAO: Defense Control Manag			DCMC/LM: De				mand/Lock	heed Martin		
	Power Paragon (formely MAGNA	TECH)		DPRO: Defen		presentativ	e Office				

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Exhibit P-5A

### **BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)** A: DATE: February 1997 C. P-1 ITEM NOMENCLATURE B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY, BA-4: ORDNANCE SUPPORT EQUIPMENT AEGIS SUPPORT EQUIPMENT UNIT CONTRACT DATE OF SPECS **SPECS** IF YES. COST LINE ITEM/ CONTRACTOR METHOD CONTRACTED AWARD FIRST **OUANTITY** COST AVAILABLE REV WHEN CODE FISCAL YEAR AND LOCATION & TYPE $\mathbf{BY}$ DATE DELIVERY (\$000) NOW REO'D AVAILABLE AEGIS WEAPON SYSTEM SHIPALTS MMSD. AN/UYH-16 CDI SS/FP NAVSEA 4/97 2/99 2 206 YES NO FY 1997 Bloomington, MN 55431 RD358 Refurbishment/Reconfiguration NSWC/Crane WR NAVSEA 4/97 2/99 4 130 YES NO FY 1997 4/97 SGS, New Generation Computer, MK 162 CDI SS/FP NAVSEA 2/99 5 155 YES NO FY 1997 Bloomington, MN 55431 UYK 43 ModKits LMTS SS/FP NAVSEA 4/97 2/99 5 36 YES NO FY 1997 St. Paul, MN 55164 BFTT, C/P Integration TBD NSWC/DD 3/97 1,936 VAR 4/98 N/A YES NO FY 1997 BFTT, Supplemental Components WR 4/97 159 YES NSWC/PD NAVSEA 4/98 3 NO FY 1997 MFL, Multi-Frequency Link 11 Data Time Set FY 1997 MIKROS FISC/WNY 4/97 NO WR 4/98 6 150 YES MMSD, AN/UYH-16 CDI SS/FP NAVSEA 4/98 2/00 2 211 YES NO FY 1998 Bloomington, MN 55431 SGS, New Generation Computer, MK 162 CDI SS/FP NAVSEA 4/98 2/00 6 158 YES NO

D. REMARKS

FY 1998

FY 1998

FY 1998

ACTs REHOST FY 1998

UYK 43 ModKits

SGS UPGRADE FOR DNMFL

LMTS: Lockheed Martin Tactical Systems (formerly UNISYS)

Bloomington, MN 55431

LMTS

St. Paul, MN 55164

CDI

Bloomington, MN 55431

VAR

SS/FP

BOA

WR

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NAVSEA

NAVSEA

NSWC/DD

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10

4/98

6/98

6/98

2/00

4/00

4/00

37

93

126

6

14

YES

YES

YES

NO

NO

NO

		BUDGET PROCUREMEN	NT HISTORY	AND PLANNING	EXHIBIT	(P-5A)				A: DATE: February 1	997
	OPRIATION/BUDGET ACTIVITY				C. P-1 ITE	M NOMENC					
	OTHER PROCUREMENT, NAVY, BA-4: 0	ORDNANCE SUPPORT EQU					ORT EQUIPM		ann aa	ann aa	
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE		AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (\$000)	SPECS AVAILABLE NOW	SPECS REV REQ'D	IF YES, WHEN AVAILABLE
	(Continued) ORTS UPGRADE FY 1998	LOCKHEED MARTIN Moorestown, NJ 08057	воа	NAVSEA	6/98	4/00	5	338	YES	NO	-
	MMSD, AN/UYH-16 FY 1999	CDI Bloomington, MN 55431	SS/FP	NAVSEA	4/99	2/01	3	214	YES	NO	-
	SGS, New Generation Computer, MK 162 FY 1999	CDI Bloomington, MN 55431	SS/FP	NAVSEA	4/99	2/01	8	162	YES	NO	-
	UYK 43 ModKits FY 1999	LMTS St. Paul, MN 55164	SS/FP	NAVSEA	4/99	2/01	4	37	YES	NO	-
	SGS UPGRADE FOR DNMFL FY 1999	CDI Bloomington, MN 55431	BOA	NAVSEA	7/99	5/01	15	95	YES	NO	-
	ACTs REHOST FY 1999	NSWC/DD	WR	NAVSEA	7/99	5/01	7	129	YES	NO	-
	TIP/TIP SWITCH FY 1999	NSWC/PHD	WR	NAVSEA	7/99	5/01	3	982	YES	NO	-

D. REMARKS

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Exhibit P-5A

		BUDGET PROCUREMEN	NT HISTORY	AND PLANNING		` ′				A: DATE: February 19	997
	OPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY, BA-4: (		HDMENIT		C. P-1 ITE	M NOMENC	<b>LATURE</b> ORT EQUIPM	ENT			
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF		UNIT COST (\$000)	SPECS AVAILABLE NOW	SPECS REV REQ'D	IF YES, WHEN AVAILABLE
	AEGIS COMMON EQUIPMENT ACE for DDG-51 Class FY 1996	BATH IRON WORKS Bath, ME 04530	SS/FP	SUPSHIPBATH	7/96	1/97	1 LOT	1,000	YES	NO NO	-
	ACE for CG-47 Class FY 1996	ISI/LITTON Pascagoula, MS 39568	SS/FP	SUPSHIP/PAS	4/96	1/97	1 LOT	953	YES	NO	-
	ACE for DDG-51 Class FY1997	BATH IRON WORKS Bath, ME 04530	SS/FP	SUPSHIPBATH	7/97	1/98	1 LOT	794	YES	NO	-
	ACE for CG-47 Class FY1997	ISI/LITTON Pascagoula, MS 39568	SS/FP	SUPSHIP/PAS	4/97	1/98	1 LOT	795	YES	NO	-
	ACE for DDG-51 Class FY1998	BATH IRON WORKS Bath, ME 04530	SS/FP	SUPSHIPBATH	4/98	1/99	1 LOT	847	YES	NO	-
	ACE for CG-47 Class FY1998	ISI/LITTON Pascagoula, MS 39568	SS/FP	SUPSHIP/PAS	4/98	1/99	1 LOT	850	YES	NO	-
	ACE for DDG-51 Class FY1999	BATH IRON WORKS Bath, ME 04530	SS/FP	SUPSHIPBATH	7/99	1/00	1 LOT	242	YES	NO	-
	ACE for CG-47 Class FY1999	ISI/LITTON Pascagoula, MS 39568	SS/FP	SUPSHIP/PAS	4/99	1/00	1 LOT	243	YES	NO	-
D REMA											

D. REMARKS

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Exhibit P-5A

		BUDGET PROCUI	REMENT H	HISTORY A	AND PLAN	NING EXH	IBIT (P-5A	)		<b>A. DATE:</b> February 19	997
B. APPRO	<b>PRIATION/BUDGET ACTIVITY</b> OTHER PROCUREMENT, NAVY, BA	-4: ORDNANCE SU	PPORT EQ	UIPMENT	C. P-1 ITE		I <b>CLATURE</b> PPORT EQU				
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION				DATE OF FIRST DELIVERY	QUANTIT	UNIT COST (\$000)	SPECS VAILABL NOW		IF YES, WHEN AVAILABLE
L7017	BASELINE 3 ENG BASE UPGRADE LoBOY UYK-43 COMPUTERS FY 1996	UNISYS St. Paul, MN 55164	SS/FP	NAVSEA	5/96	1/99	8	897	YES	NO	-
	MANNED Q70 CONSOLES FY 1996	UNISYS St. Paul, MN 55164	SS/FP	NAVSEA	3/96	9/98	24	289	YES	NO	-
	UNMANNED Q70, EPS RACKS FY 1996	UNISYS St. Paul, MN 55164	SS/FP	NAVSEA	8/96	5/99	4	667	YES	NO	-
	NEXT GENERATION PERIPHERALS FY 1996	UNISYS St. Paul, MN 55164	SS/FP	NAVSEA	8/96	5/99	2	288	YES	NO	-
	B/L 3 OTHER SHIPALT EQUIPMENT FY 1996, CG-64	HUGHES Fullerton, CA 92634	SS/FP	NAVSEA	8/96	5/99	1	8,768	YES	NO	-
	FY 1996, CG-59 * (see remarks)	HUGHES Fullerton, CA 92634	SS/FP	NAVSEA	8/96	1/99	1	12,412	YES	NO	-
	B/L 3 SITE EQUIPMENT FY 1996	HUGHES Fullerton, CA 92634	SS/FP	NAVSEA	8/96	6/98	1 LOT	1,994	YES	NO	-

## D. REMARKS

P-1 SHOPPING LIST

Exhibit P-5A

ITEM NO. 155 PAGE NO.

<sup>\*</sup> CG-59 built with UYA 4 Displays vice UYQ 21 Displays. UYQ 21 Displays made available from shore sites will be refurbished for CG-59 but associated peripherals still require procurement.

### MODIFICATION OF WEAPON SYSTEM

Date: February 1997

EXHIBIT P-3A

MODIFICATION TITLE: AEGIS CRUISER, BASELINE 3, ENGINEERING BASE UPGRADE.

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

DESCRIPTION/JUSTIFICATION:

The Baseline 3 upgrade provides major performance enhancements in the areas of force command, Anti-Air Warfare (AAW), and Strike Warfare (STW) which are required to meet Navy Force Level warfare ojectives. The upgrade provides the required

computing and display capability to accommodate Cooperative Engagement Capability (CEC), Theater Ballistic Missile Defense (TBMD),

JTIDS and SM-2 Block IV missiles.

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN: (\$M)	FY 96 & PRIO Qty		FY 97 Qty	\$M	FY 98 Qty		FY 99 Qty		FY Qty	00 \$M	FY 01 Qty	\$M	FY 02 Qty		FY 0 Qty		TO C	OMPLE \$M	TE	TOTAL Qty	\$M
RDT&E																					
PROCUREMENT:	6	141.0																		6	141.0
Kit quantity																					
Installation Kits																					
Installation Kits Nonrecurring																					
Equipment	6	141.0																		6	141.0
Equipment Nonrecurring																					
Engineering Change Orders																					
Data																					
raining Equipment																					
Other																					
nterim Contractor Support																					
nstallation of Hardware	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M		Qty	\$M
FY 96 & PRIOR (7 Kits)	1	11.2	1	10.3	1	7.3	2	15.4	1	8.6										6	52.8
otal Installation cost	1	11.2	1	10.3	1	7.3	2	15.4	1	8.6										6	52.8
otal Procurement Cost	1	141.0	1	0.0	1	0.0	2	0.0		0.0										U	141.0
OTAL COST		152.2		10.3		7.3		15.4		8.6											193.8
METHOD OF IMPLEMENTATION:	Schedu	led availabi	lities in pu	blic and priv	vate shipy	ards. Adı	nin L/T: 3 Mo. P	rod L/T: 33	Mo.												
CONTRACT DATE:		PRIOR YI					YEAR 1: MAY 9														
DELIVERY DATE:		PRIOR YI	EAR: MA	R 96	1	BUDGET	YEAR 1: FEB 99														
NGT A LATION GOVERNA																					
NSTALLATION SCHEDULE:	FY	96			FY	97			FY	98				FY	99			FY	00		TOTAL
NPUT 1		3	4	1 1 1	2		4	1 1	2		4	1	1 1	2	3	4	1		3	4	TOTAL
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Y 96 & PRIOR	^^^^		^^^^   			1		^^^^^		1				1	1			 	       		- 1
Y 96 & PRIOR		1				1				1				1	1						6
Y 96 & PRIOR		^^^^^	^^^^		2	1	4		2	1			1	2	1   1	4	1   1   1   1   1   1   1   1   1   1	2			6
Y 96 & PRIOR		1   1	^^^^		2	1	4		2	1			1	2	1   1		1   1   1   1   1   1   1   1   1   1	2   ^^^^	3		6
Y 96 & PRIOR		^^^^^	^^^^		2	1	4		2	1			1	2	1   1	4	1   1   1   1   1   1   1   1   1   1	2			6
Y 96 & PRIOR		^^^^^	^^^^		2	1	4		2	1			1	2	1   1	4	1   1   1   1   1   1   1   1   1   1	2   ^^^^	3		6
Y 96 & PRIOR		^^^^^	^^^^		2	1	4		2	1			1	2	1   1	4	1   1   1   1   1   1   1   1   1   1	2   ^^^^	3		6

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MODIFICATION OF WEAPON SYSTEM Date: February 1997

MODIFICATION TITLE: AEGIS WEAPON SYSTEM ORDNANCE ALTERATIONS (AWS ORDALTS)

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

DESCRIPTION/JUSTIFICATION: MISCELLANEOUS AEGIS WEAPONS SYSTEM ORDALTS (CG/DDG). This program provides for procurement and installation of emerging fact-of-life and safety modifications to the AEGIS Weapon System (AWS). These requirements will continue through the life of the Ships.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FY 96

	FY 96																				
FINANCIAL PLAN: (\$M)	& PRIC		FY 97		FY 9		FY 99		FY		FY 01		FY 02		FY 03			TO COM			TAL
	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M		Qty	\$M	Qty	\$M
DT&E																					
PROCUREMENT:																					
Kit quantity																					
Installation Kits																					
Installation Kits Nonrecurring																					
Equipment	Var	20.9	Var	3.3	Var	3.3	Var	3.0	Var	5.6	Var	6.1	Var	5.3	Var	5.5		Var	TBD		TBD
Equipment Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
nterim Contractor Support																					
Installation of Hardware	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M		Qty	\$M	Qty	\$M
FY 96 & PRIOR (Var Kits)	Var	5.5	Var	1.9																Var	7.4
FY 97 (Var Kits)					Var	1.1														Var	1.1
FY 98 (Var Kits)							Var	5.0												Var	5.0
FY 99 (Var Kits)									Var	3.0										Var	3.0
FY 00 (Var Kits)											Var	3.4								Var	3.4
FY 01 (Var Kits)													Var	4.1						Var	4.1
FY 02 (Var Kits)															Var	4.5				Var	4.5
FY 03 (Var Kits)																		Var	TBD	Var	TBD
TC (TBD Kits)																		Var	TBD	Var	TBD
Total Installation Cost	Var	5.5	Var	1.9	Var	1.1	Var	5.0	Var	3.0	Var	3.4	Var	4.1	Var	4.5		Var	TBD	Var	TBD
Total Procurement Cost		20.9		3.3		3.3		3.0		5.6		6.1		5.3		5.5		Var	TBD	Var	TBD
Total Cost		26.4		5.2		4.4		8.0		8.6		9.5		9.4		10.0		Var	TBD	Var	TBD
METHOD OF IMPLEMENTATION:				t Manufactur	er (OEM) F																
CONTRACT DATE:			NT YEAR:			BUD YR 1				2: MAY 97			R 3: MAY 9			4: MAY 9	-		8 5: MAY 00		R 6: MAY 01
PRODUCTION DELIVERY DATE:		CURRE	NT YEAR:	AUG 96		BUD YR 1	: AUG 97		BUD YR	R 2: AUG 98	3	BUD YR	R 3: AUG 9	99	BUD YR	4: AUG 0	0	BUD YR	8 5: AUG 01	BUD YF	R 6: AUG 02
NSTALLATION SCHEDULE:		FY	96			FY	97				FY	98				FY	99			TC	TOTAL
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Y 1998	i		i	i i	i	i		1	i	i	i		VAR	i	i i				i i	i	VAR
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FY 1998	i			i i	1	1				VAR	VAR	VAR	VAR	1					i i	i	VAR
FY 1999	i	İ	i	i i	i	i	İ	İ	i	İ	İ	İ	İ	i	VAR	VAR	VAR	VAR	i i	i	VAR
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P-1 SHOPPING LIST

ITEM NO. 151

PAGE NO. 15

EXHIBIT P-3A

MODIFICATION OF WEAPON SYSTEM Date February 1997

MODIFICATION TITLE: AEGIS WEAPON SYSTEM SHIP ALTERATIONS (AWS SHIPALTS)

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

DESCRIPTION/JUSTIFICATION: MISCELLANEOUS AEGIS WEAPONS SYSTEM SHIPALTS (CG/DDG). This program provides for procurement and installation of emerging fact-of-life, and

safety modifications to the AEGIS Weapon System (AWS), including alterations which are prerequisite to AWS interoperability/compatability with other systems (TBMD/JTIDS/CEC/Tomahawk). These requirements will continue through the life of the ships. These SHIPALTS vary in scope and will be installed primarily by Alteration Installation Teams and Public or Private Shipyards.

FINANCIAL PLAN: (\$M)							FY 96 & P			97		FY 98		<b>/</b> 99		FY 0			FY 01		FY			03			MPLETE	TOT	AL
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RDT&E:																													
PROCUREMENT:																													
Kit quantity																													
nstallation Kits																													
nstallation Kits Nonrecurring																													
Equipment									Var	5.2	Va	r 5.2	Var	7.4		Var	19.7	V	ar 1	8.5	Var	18.5	Var	18.9		Var	TBD		TBD
Equipment Nonrecurring																			-										
Engineering Change Orders																													
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Training Equipment																													
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Non-OPN Procurements									Var	1.0																		Var	1.0
FY 97 (Var Kits)											Va	r 0.8																Var	4.5
FY 98 (Var Kits)													Var	1.8	3													Var	9.2
FY 99 (Var Kits)																Var	4.9											Var	10.6
FY 00 (Var Kits)																		V	ar	4.5								Var	6.6
FY 01 (Var Kits)																					Var	2.4						Var	11.7
FY 02 (Var Kits)																							Var	1.1				Var	1.1
FY 03 (Var Kits)																										Var	TBD	Var	TBD
TC (Var Kits)																										Var	TBD	Var	TBD
otal Installation Cost									Var	1.0	Va	r 0.8	Var	1.8	3	Var	4.9	V	ar	4.5	Var	2.4	Var	1.1		Var	TBD	Var	TBD
Total Procurement Cost										5.2		5.2		7.4			19.7			18.5		18.5		18.9			TBD		TBD
TOTAL COS	:T									6.2		6.0		9.2			24.6			3.0		20.9		20.0			TBD		TBD
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CONTRACT DATE:				BUD YK	2: DEC 9	o 1	BUD YR 3:	DEC 97		BUD	YR 4: DI	EC 98		BUD	YR 5: DE	C 99	BUD YR 6: D	EC 00											
NSTALLATION SCHEDULE:		FY	97				FY	98					EV	99						EV	00				TC		TOTAL		
NSTALLATION SCHEDULE.						1	2	3		4		1			3	4			1 I	2		3	4		. 10		TOTAL		
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Y 1999				1 1			- 1				- 1			-			1	- 1	- 1	VAR		VAR	VAR		1 1		VAR		
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ITEM NO. PAGE
155 16

EXHIBIT P-3A

### MODIFICATION OF WEAPON SYSTEM

Date: February 1997

MODIFICATION TITLE: AEGIS WEAPON SYSTEM, DESIGN SERVICE ALLOCATION (DSA)

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

DESCRIPTION/JUSTIFICATION: This funds the planning yards to develop work packages to support the upgrades procured by this account.

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 96																			
FINANCIAL PLAN: (\$M)	& PRIO		FY 97		FY 98		FY 99		FY 00		FY 01		FY 02		FY (			OMPLETE	TOTAL	
	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M
RDT&E																				
PROCUREMENT:																				
Installation of Hardware	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M
FY 98 (Var Kits)	•		•		Var	4.2	-		•		•								Var	4.2
FY 99 (Var Kits)							Var	6.8											Var	6.8
FY 00 (Var Kits)									Var	4.0									Var	4.0
FY 01 (Var Kits)											Var	5.4							Var	5.4
FY 02 (Var Kits)													Var	4.2					Var	4.2
FY 03 (Var Kits)															Var	6.7			Var	6.7
TC (TBD Kits)																	Var	TBD	Var	TBD
Total Installation Cost					Var	4.2	Var	6.8	Var	4.0	Var	5.4	Var	4.2	Var	6.7	Var	TBD	Var	TBD
Total Procurement Cost																				
TOTAL COST					Var	4.2	Var	6.8	Var	4.0	Var	5.4	Var	4.2	Var	6.7	Var	TBD	Var	TBD
METHOD OF IMPLEMENTATION:		Original Ed	quipment Ma	anufacturer (	OEM) Field															
CONTRACT DATE:		CURRENT	YEAR: MA	Y 95		BUD YF	R 1: MAY 96		BUD YR 2:	MAY 97		BUD Y	/R 3: MAY 9	98	BUD \	YR 4: MAY 99	BUD	YR 5: MAY 0	(BUD YR 6: N	MAY 01
PRODUCTION DELIVERY DATE:		CURRENT	YEAR: AU	G 96		BUD YF	R 1: AUG 97		BUD YR 2:	AUG 98		BUD Y	/R 3: AUG 9	99	BUD \	YR 4: AUG 00	BUD	YR 5: AUG 0	1BUD YR 6: A	UG 02
INSTALLATION SCHEDULE:		FY	98			FY	99				FY	00				FY 01		T	C	TOTAL
OUTPUT	1	2	3	4	1	2	3	4		1	2	3	4		1	2   3	4			
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FY 1998	VAR	VAR	VAR	VAR	1						l								1	VAR
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FY 2000										VAR	VAR	VAR	VAR							VAR
FY 2001	1	1		1 1	1		1						l	l	VAR		R   VAR		1	VAR
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EXHIBIT P-3A

TIME PHASED SCHEDULE		A. AF	PROF	PRIAT	ON/B OPN/I			ΓΙVΙΤ	Υ:	B. P-1	ITEM	I NOM	IENCI	ATUF	RE: AN	N/UYK	- 43, 1	LoBoy	for B/	L 3		C. D.	ATE:	Febru	ary 199	7
		1	<b>FY</b> 19		4	1	<b>FY 19</b>	<b>997</b> 3	4	1	<b>FY 19</b>	<b>98</b> 3	4	1	<b>FY 19</b>	<b>99</b> 3	4	1	<b>FY 20</b>	<b>)00</b>	4	1	FY 20	<b>001</b> 3	4	LATE
ACTIVE FORCE DRIVEN	(P)	1		5	4	1		5	4	1	2	5	4	1	5	4	<u> </u>	4		3	1	1		3	Τ	
	(P)																									
SCHOOLS/OTHER TRAININ	<b>IG</b> (P)																									
	(P)																									
OTHER	(P)																									
TOTAL PHASE REQ	(C)			5	5	5	5	10	10	10	10	15	15	15	20	24	24	28								28
ASSETS ON HAND	(BP)																									
DELIVERY FY 96 & PRIOR (	(20 (P)			5	10				5																	
FY 97	(P)			M-2												4	4									
FY 98	(P)																									
FY 99	(P)																									
	(P)																									
	(P)																									
TOTAL ASSETS	(C)			5	15	15	15	15	20	20	20	20	20	20	20	24	28	28								28
QTY OVER (+) OR SHORT (-	.)			0	+10	+10	+10		+10	+10	+10	+5	+5	+5	0	0	+4	0								0
D. REMARKS								Е.	RQM		Y)			TO'	MT	IN	[STAL]	LED	ON H			96 & P DELIVI		Ţ	UNFUN	IDED
CG 64 ROH being rescheduled	to acco	modat	e this i	nstalla	tion				PPN C PPN	PN					28		0			0		28			0	
schedule.								3. PR	OCUR	EMEN	T LEA	DTIMI	Ξ	ADMI	N 3 M	IONTH	IS	INITI	AL 33	MONT	гнѕ	REOF	RDER 3	3 MOI	NTHS	
								P-1 SH	OPPIN	G LIS	Γ											EXHI	BIT P-	23		

ITEM NO. PAGE NO. 155 18

				TIME PH	ASED RE	QUIREME	ENTS SCH	EDULE		DATE: F	ebruary 19	997			
				(Supple	ement Sheet	- Installatio	on Data)								
APPROPE	RIATION/B	UDGET AC	CTIVITY					P-1 ITEM	NOMENCI	LATURE:	AN/UYK-4	3 LoBoys fo	or B/L 3		
		OPN/BA - 4	4												
1ST QT	R	2ND QT	R	3RD QTI		4TH QTI		1ST QT		2ND QT		3RD QTI		4TH QTI	
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
	1		FY 1990	5							FY 1997				
				CG 61	5							CG 62	5		
			FY 1998	8							FY 1999				
	Ī		11177	3							1111///				
				CG 60	5					CG 63	5	CG 59	4		

P-1 SHOPPING LIST ITEM NO.

155

PAGE NO.

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EXHIBIT P-23a

TIME PHASED SCHEDULE	A	A. AP	PROI	PRIAT	TON/I OPN/		ET AC	CTIVI	TY:						RE: C				2 I oDa	ys for	рл 2		ATE:	Febru	ıary 1	997
	-		FY 19	996	OPN/	DA	FY 19	997			FY 19	-	/901, 3	79, 90	2,904, FY 19		ESS U	1 K-4,	FY 20	•	D/L 3		FY 20	001		LATER
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
ACTIVE FORCE DRIVEN (1	?)			1				1				1			1	1		1								
(I	P)																									
SCHOOLS/OTHER TRAINING (I	P)																									
(I	?)																									
OTHER (I	?)																									
TOTAL PHASE REQ (0	C)			1	1	1	1	2	2	2	2	3	3	3	4	5	5	6								6
ASSETS ON HAND (I	3P)																									
DELIVERY FY 96 & PRIOR(6) (I	?)			1	2				1							1	1									
FY 97 (I	?)			M-2																						
FY 98 (I	?)																									
FY 99 (I	?)																									
TOTAL ASSETS ((	7)			1	3	3	3	3	4	4	4	4	4	4	4	5	6	6								6
	-)				+2	+2	+2			+2	+2				0		. 1	0								0
QTY OVER (+) OR SHORT (-)				U	+2	+2	+2	+1 E.	+2	+2	+2	+1	+1	+1 TO	TAL	IN	+1 ISTAL		ON H	AND	FY	96 & P	RIOR	Ţ	JNFU.	NDED
D. REMARKS										Т (QТ	ΓY)			RQ	MT							DELIV:				
CC 64 DOU hoing woodhadula l ta a		odo4	o this	ingtall	otion				PPN ( PPN	OPN					6		0			0		6			0	
CG 64 ROH being rescheduled to a schedule.	iccom	ioaat	e tnis	ınstall	ation					REMEN	NT LEA	AD-TIN	MЕ	ADM	IN 3 N	/ONTI	HS	INITI	AL 33	MONT	THS	REOF	RDER 3	33 MO	NTHS	
							т	1 011	OPPIN	IC I IC	т											EVUI	BIT P-	23		

ITEM NO. PAGE NO. 155 20

				TIME PH	ASED RE	QUIREMI	ENTS SCI	IEDULE		DATE: F	ebruary 19	997			
				(Supple	ement Sheet	- Installatio	on Data)								
APPROPE	RIATION/B	UDGET AC	CTIVITY					P-1 ITEM	NOMENC	LATURE:					
		OPN/BA - 4	4	•		•		SHIPALT 2	24, 345/901,	902, 904, 90	5, LESS AN	I/UYK-43 Lo	oBoys for B	L 3	
1ST QT	R	2ND QT	R	3RD QT	R	4TH QT	R	1ST QT	R	2ND QT	R	3RD QTI	R	4TH QTI	R
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
	•	•	FY 199	6	T	•	<b>T</b>			T	FY 1997	T			
				CG 61	1							CG 62	1		
			FY 199	8							FY 1999				
				Ĭ											
				CG 60	1					CG 63	1	CG 59	1		
						P-1 S	SHOPPING	LIST					E	XHIBIT P-2	3a

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	BUD	GET ITEM J	USTIFICATI	ON SHEET			DATE:	
			P-40				Februa	ry 1997
APPROPRIATION/BL	JDGET ACTIVITY				P-1 ITEM NOM	ENCLATURE		
Other Procurem	ent, Navy				Surface To	mahawk Su	pport Equip	ment (J45A
<b>BA4/Ordnance</b> \$	Support Equip	oment			(PEO(CU))	(BLI: 52500)	0)	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	_	_	-	-	-	-	-	-
COST (In Millions)	\$63.7	\$83.8	\$65.5	\$94.8	\$82.0	\$74.7	\$55.1	<b>\$56.3</b>

Afloat Planning System (APS) provides Tomahawk Land Attack Missile (TLAM) mission planning capability to US Navy Battle Force and Battle Group Commanders. Installations are planned for CV/CVNs and two APS support facilities. APS consists of three segments: (a) TLAM Planning system (TPS) which plans conventional TLAM routes; (b) Digital Imagery Workstation Afloat (DIWSA) which processes required imagery data and (c) Tactical Data Distribution System (TDDS) which is the communications link with incoming threat, weather and imagery data, and outgoing TLAM missions sent to Tomahawk platforms. Total IO/Requirement for APS is 18.

Advanced Tomahawk Weapons Control System (ATWCS) procures hardware and software reliability, maintainability and safety changes to correct Tomahawk Weapon Systems (TWS) deficiencies, TWS upgrades resulting from RDT&E initiated improvements, operational requirements, Desert Storm lessons learned, fleet systems reviews, and Land Base Test Site (LBTS) testing. This element funds the procurement of ATWCS which provides state-of-the-art open system architecture, greater graphical display, improved interface, increased mission storage capacity, improved flexibility and responsiveness.

Installation of Equipment funds all Fleet Modernization Program (FMP) installation costs associated with ATWCS and all non-FMP installation costs associated with APS and shore-sited units of both systems.

Theater Mission Planning Center (TMPC) Product Improvements procures required software improvements. Tomahawk mission planning is highly dependent on mapping, charting and geodesy products from Defense Mapping Agency (DMA) and imagery from national systems. Transmitting the missions to Tomahawk capable platforms depends entirely on the Navy communications system which historically is improved and updated on a regular basis, many annually. This funding allows TMPC to retain compatibility with, and exploit capabilities of, these systems.

The FY98 program procures 22 ATWCS units, TMPC product improvements and associated systems support costs. The FY99 program procures 28 ATWCS units, TMPC product improvements and associated systems support costs.

Budget reflects the transfer of design services into the appropriate equipment P-1 line item beginning in FY 1998.

P-1 SHOPPING LIST

CLASSIFICATION:

DD Form 2454, JUN 86 ITEM NO. 156 PAGE NO. 1

# **UNCLASSIFIED**

	w	EAPONS		M COST ANALY	'SIS				DATE:	
4 00000	DDIATION/DUDOET ACTIVITY		P-		N ATUDE	- (OLUBULE A B			Fel	bruary 1997
Other I	PRIATION/BUDGET ACTIVITY  Procurement, Navy  rdnance Support Equipment			P-1 ITEM NOMENO		ce Tomahawk		ort Equipment : 525000)	(J45A)	)
			•		TOTAL C	COST IN THOUSAN	DS OF D	OLLARS		
COST	ELEMENT OF COST	IDENT CODE		FY 1996		FY 1997		FY 1998		FY 1999
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
03000 06000 07000 07001 07002 08000	Weapon Control System Afloat Planning System (APS) Advanced Tomahawk Weapons Control System (ATWCS) Installation of Equipment (Non-FMP) installation of Equipment (FMP) Design Service Agent (FMP Install) Theater Mission Planning Center (TMPC) Product Improvements	A N/A N/A N/A N/A	4	20,931 27,064 2,116 538 0 13,026	2	10,000 52,350 2,619 2,594 0 16,222		30,756 1,499 4,300 604 28,343		39,94 8,06 1,32 45,42
	<u> </u>			63,675		83,785		65,502		94,76

DD FORM 2446, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO. 156 PAGE NO. 2

# **UNCLASSIFIED**

	BUDGET PROCURE	MENT HISTO	RY AND PLAN		•	•			A. DATE Febru	ary 1997
B. APPROPRIATION/BUDG Other Procurement, BA4/Ordnance Supp	Navy			Surface	U)) (BLI: 5	k Support E		SUBHEAD		45A
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
Afloat Planning System 03000/FY96	GD/E, San Diego CA	SS/Option	NAVSUP	Jun 96	Aug 97	4	5,233	Yes	No	
03000/FY97	GD/E, San Diego CA	SS/Option	NAVSUP	Jan 97	Mar 98	2	5,000	Yes	No	
D. REMARKS  Procurements are sole source	ce due to unique capabilities of	these vendors to p	produce the equipm	ent indicate	d.					

DD Form 2446-1, JUL 87 ITEM NO. 156 PAGE NO. 3 CLASSIFICATION:

Mo	DDIFICATION	N INSTALLA	TION SUMA	RY			DATE		
	(E	XHIBIT P-31	٧)				<b>February</b>	1997	
	•	Dollars in M	illions)		1				
APPROPRIATION/BUDGET ACTIVITY	<b>'</b> :					MENCLATU			. ( (   4 = 4 )
Other Procurement, Navy	nmont							Equipme (CU)) (BL	
BA4/Ordnance Support Equi	pinent				(PEO(CO)	) (BLI. 323	 	(CO)) (BL	. 525000)
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
Advanced Tomahawk Weapons Control System	0.5	4.1	5.9	9.4	7.8	7.4	7.2	0.0	42.3
Afloat Planning System	2.1	1.1	0.6	0.0	0.0	0.0	0.0	0.0	3.8
									42.
TOTAL	2.6	5.2	6.5	9.4	7.8	7.4	7.2	0.0	46.1

P-1 SHOPPING LIST

ITEM NO. 156

PAGE NO. 4

CLASSIFICATION:

INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Advanced Tomahawk Weapons Control System (ATWCS)

MODELS OF SYSTEM AFFECTED: CGs/DDs/DDGs/CVs/CVNs/LCCs/AGFs

DESCRIPTION/JUSTIFICATION: ATWCS provides state-of-the-art open system architecture, greater graphical display, improved interface, mission storage capacity, flexibility and responsiveness over the previous Tomahawk Weapons Control System configuration.

DEVELOPMENT STATUS/MAJOR DEVELO	PMENT MILESTO		٠		1007				1000	<b>5</b> \(	0000	<b>- - - - - - - - - -</b>	0004	<b>-</b>	0000	_	, 0000	_		_	OT41
		FY 1996 QTY			1997		<u>1998</u>	QTY	1999 ©		2000		<u>2001</u>		<u>2002</u> \$		2003		<u>rc</u>		<u>TATC</u>
		QIY	\$	QTY	\$	QTY	\$	QIY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																					
RDT&E																				0	0.0
<u>PROCUREMENT</u>																					
INSTALLATION KITS		28	62.5	29	45.6	22	24.0	28	30.8	34	33.5	20	20.5	0	0.0	0	0.0	0	0.0	161	216.9
INSTALLATION KITS (UNIT COST)			2.232		1.572		1.091		1.100		0.985		1.025		0.000		0.000		0.000		
INSTALLATION KITS NONRECURRING																					0.0
EQUIPMENT																					0.0
EQUIPMENT NONRECURRING																					0.0
ENGINEERING CHANGE ORDERS																					0.0
DATA																					0.0
TRAINING EQUIPMENT																					0.0
SUPPORT EQUIPMENT																					0.0
OTHER (Engineering Support)			26.3		6.7		6.8		9.1		9.2		18.9		18.9		26.5		0.0		122.4
INTERIM CONTRACTOR SUPPORT																					0.0
INSTALLATION OF HARDWARE																					
FY 1996 EQUIPMENT & PRIOR (28 KITS)		5	0.7	14	4.1	9	3.0													28	7.8
FY 1997 EQUIPMENT (29 KITS)						10	2.9	19	4.4											29	7.3
FY 1998 EQUIPMENT (22 KITS)								21	5.0	1	0.5									22	5.5
FY 1999 EQUIPMENT (28 KITS)										28	7.3									28	7.3
FY 2000 EQUIPMENT (54 KITS)												34	7.4							34	7.4
FY 2001 EQUIPMENT														20	7.2					20	7.2
FY 2002 EQUIPMENT																0	0.0			0	0.0
FY 2003 EQUIPMENT																		0	0.0	0	0.0
TO COMPLETE																				0	0.0
TOTAL INSTALLATION COST		5	0.7	14	4.1	19	5.9	40	9.4	29	7.8	34	7.4	20	7.2	0	0.0	0	0.0	161	42.5
TOTAL PROCUREMENT COST		28	89.5	29	56.4	22	36.7	28	49.3	34	50.5	20	46.8	0	26.1	0	26.5	0	0.0	161	381.8
TOTAL COST			89.5		56.4		36.7		49.3		50.5		46.8		26.1		26.5		0.0		381.8
METHOD OF IMPLEMENTATION:	FMP/Alteration In	stallation 1	Γeam (Al	T)		ADMI	NISTRA	TIVE L	EADTIN	ИЕ: 6	6 month	s PR	ODUC	ΓΙΟΝ LI	EADTIN	ΛE:	12 mon	ths			
CONTRACT DATE:		FY 1997:		- ,			FY 1998		Mar-98			FY 19			Mar-99						
PRODUCTION DELIVER DATE:		FY 1997:					FY 1998		Multiple			FY 19			Multiple						
																					P-3A
																					2-3A

INSTALLATION SCHEDULE:    FY 1996   FY 1997	CLASSIFICATION:	UNCLAS	311 1																													
INSTALLATION SCHEDULE:  INPUT ===>	P3A (Continued)															l (Cor	itinue	ed)														
FY 1996   FY 1996   FY 1997     FY 1998     1   2   3   4   1   4   4   5   4   4   5   4   4   5   4   4	MODIFICATION TIT	LE:	<u>Adv</u>	/anc	ed To	<u>omal</u>	<u>nawk</u>	Wea	<u>ipon</u>	s Co	<u>ntrol</u>	Syst	tem (	ATW	<u>(CS)</u>																	
FY 1996																																
Series   S	INSTALLATION S	SCHEDUL	E:																													
Series   S																																
FY 1996 & Prior	INPUT ===>								<u> 1998</u>				<u> 1999</u>								<u> 2001</u>				2002							
FY 1997		& Prior	1			_	1	2	3	4	1	2	3	4	1			4	1		_	4	1	2	3	4	1	2		4	1	TOTAL
FY 1998		10	3		-	_	1	-	-	-		-	-	0	0				0	-	-	0	0	-	-	0	0	-	-	0	0	-
FY 1999		0	0	-		0	0	6	6	7	10	0	0	0	0	0		0	0			0	0	0	0	0	0	0		0		
FY 2000   0   0   0   0   0   0   0   0		0	0	0	0	0	0	0	0	0	0	8	7	3	4	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY 2001		0	0	0	0	0	0	0	0	0	0	0	0	0	0	6		6	6	0		0	0	0	0	0	0	0	0	0		28
FY 2002   0   0   0   0   0   0   0   0		0	0	0		0	0	0	0	0	0	0	0	0	0	0		0	0	8	10	8	8	0	0	0	0	0	0	0		
FY 2003 To Complete    O		0	0	0		0	0	0		0	0	0	0	0	0	0		0	0	0	0	0	0	8	8	4	0	0	0	0		20
To Complete 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTPUT ==>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TUTPUT ==>	To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TUTPUT ==>																																
Section   1																																161
Section   1																																
FY 1996 & Prior 5	OUTPUT ==>												<u> 1999</u>			FY 2	000				<u> 2001</u>				2002							
FY 1997     O		& Prior	1	2	3	4	1		3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	TOTAL
FY 1998	FY 1996 & Prior	5	2	7	4	1	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
FY 1999 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FY 1997	0	0	0	0	0	0	2	5	3	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
FY 2000	FY 1998	0	0	0	0	0	0	0	0	0	0	8	11	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
FY 2001	FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4		6	0	0	0	0	0	0	0	0	0	0	0	0	0	28
FY 2002 FY 2003 To Complete  O  O  O  O  O  O  O  O  O  O  O  O  O	FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	16	8	8	0	0	0	0	0	0	0	0	0	34
FY 2003 To Complete  O  O  O  O  O  O  O  O  O  O  O  O  O	FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	6	4	6	0	0	0	0	0	20
To Complete 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161 P-3A	FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P-3A	To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P-3A																																
·																																161
ITEM 156 PAGE 5a CLASSIFICATION: UNCLASSIFIED																																P-3A
	<u> </u>													IT	ΕM	156		PA	GE	5a						CLA	SSIF	CAT	ION:	UNC	LAS	SIFIED

P3A INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Afloat Planning System (APS)

MODELS OF SYSTEM AFFECTED: CVs/CVNs

DESCRIPTION/JUSTIFICATION: Afloat Planning System provides Tomahawk Land Attack Missile (TLAM) mission planning capability to US Navy Battle Force and Battle Group Commanders.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

		FY 1996	6 & Prior	FY	1997	FY	′ 1998	FY	1999	FY	2000	FY	2001	FY	2002	<u>F</u>	<u> 2003</u>	-	<u>TC</u>	<u>T</u> (	<u>JATC</u>
	_	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)	_																				
RDT&E		2	4.8																	2	4.8
<u>PROCUREMENT</u>																					
INSTALLATION KITS		11	49.2	2	8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	14.2	16	71.4
INSTALLATION KITS (UNIT COST)			4.473		4.000		0.000		0.000		0.000		0.000		0.000		0.000		4.733		
INSTALLATION KITS NONRECURRING																					0.0
EQUIPMENT																					0.0
EQUIPMENT NONRECURRING																					0.0
ENGINEERING CHANGE ORDERS																					0.0
DATA																					0.0
TRAINING EQUIPMENT																					0.0
SUPPORT EQUIPMENT																	0.5				0.0
OTHER (Engineering Support)			11.2		2.0		0.0		0.0		0.0		0.0		0.0		0.0		9.0		22.2
INTERIM CONTRACTOR SUPPORT																					0.0
INSTALLATION OF HARDWARE																					
FY 1996 EQUIPMENT & PRIOR (13 KITS)		9	5.5	4	1.1															13	6.6
FY 1997 EQUIPMENT (2 KITS)						2	0.6													2	0.6
FY 1998 EQUIPMENT																				0	0.0
FY 1999 EQUIPMENT																				0	0.0
FY 2000 EQUIPMENT																				0	0.0
FY 2001 EQUIPMENT																				0	0.0
FY 2002 EQUIPMENT																				0	0.0
FY 2003 EQUIPMENT																				0	0.0
TO COMPLETE (5 KITS)																		3		3	0.0
		_				_		_		_		_		_		_					
TOTAL INSTALLATION COST		9	5.5	4	1.1	2	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.0	18	7.2
TOTAL PROCUREMENT COST		11	65.9	2	11.1	0	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	23.2	16	100.8
TOTAL COST			70.7		11.1		0.6		0.0		0.0		0.0		0.0		0.0		23.2		105.6
METHOD OF IMPLEMENTATION:	Alteration Installati	ion Team	n (AIT)			ADMI	INISTRA	TIVE L	EADTIN	ЛЕ: 9	9 month	s PF	RODUCT	TION LI	EADTIN	ME:	14 mon	iths			
CONTRACT DATE:		FY 1997:					FY 1998						999: N/								
PRODUCTION DELIVER DATE:		FY 1997:	MAR 98				FY 1998	: N/A				FY 19	999: N/	A							
NOTE: 2 RDT&E funded units were producti	onized and installed	for active	o floot up	o with	ODNI for	nde															
TWO TE. 2 NOTAL fullued utilits were producti	ornzeu ariu iristalleu	ioi activ	e neer us	C WILLI	OF IN IUI	ius.															
The total program quantity of 18 units reflects	s the inventory object	tive for th	his item																		
The total program quantity of 10 drills reflects	S and inventory object		ino itorri.																		
																					2.04

CLASSIFICATION:	UNCLAS	SIFIE	ע:										=:-																		
P3A (Continued)	_				_				INDI	VIDU	AL N	IODI	FICA	IION	l (Cor	itinu	ed)														
MODIFICATION TITE	_E:	Aflo	at P	<u>lanni</u>	ng S	yste	m (Al	PS)																							
INSTALLATION S	CHEDULE	:																													
INPUT ===>	FY 1996			1997			FY 1	1998				<u> 1999</u>			FY 2	2000			FY 2	2001			FY 2	002				2003		<u>TC</u>	
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	TOTAL
FY 1996 & Prior	9	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
FY 1997	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
																															18
OUTPUT ==>	FY 1996		FY 1	1997			FY 1	1998			FY	1999			FY 2	2000			FY 2	2001			FY 2	002			FY 2	2003		<u>TC</u>	
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	TOTAL
FY 1996 & Prior	9	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
FY 1997	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
																														ــــــــا	-
																															18
																															P-3A
L																												- A TI C			

## **UNCLASSIFIED**

TIME PHASED REQUIREMEN	SCHEDULE	A. AP	PROPR	IATION	/BUDGE	T ACTI	VITY			B. P-1	I ITEM N	NOMEN	CLATU	RE								C. DA	TE			1
P-23		Oth	er P	rocı	ırem	ent,	Nav	/y		Sur	face	Tor	naha	awk	Sup	port	Eqι	ıipm	ent	(J45	A)	Fe	brua	ary 19	997	
		BA4	I/Ord	nand	ce Su	ippoi	rt Eq	uipm	ent	(PE	O(C	U)) (	BLI:	<b>525</b>	000)	)		ATV	VCS							
			FY 199	97			FY 199	98			FY 199				FY 200				FY 200				FY 200			LATER
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
ACTIVE FORCE INVENTORY	(P)	0	2	4	0	4	2	5	3	19	8	11	2	3	4	16	6	2	16	8	8	4	6	4	6	0
SCHOOLS/OTHER TRAINING	(P) (P)	2	5	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER	(P)																									
TOTAL PHASED REQ	(C)	2	9	13	14	18	25	30	33	52	60	71	73	76	80	96	102	104	120	128	136	140	146	150	156	0
ASSETS ON HAND	(BP)	5																								
DELIVERY FY 96 & PRIOR	(P)	3	5	6	3	1																				
FY 96 & PRIOR	(P)																									
FY 97	(P)						6	6	7	10																
FY 98	(P)										8	7	3	4												
FY 99	(P)														6	10	6	6								
FY 00	(P)																		8	10	8	8				
FY 01	(P)																						8	8	4	
	(P)																									
	(P)																									
	(P)																									
TOTAL ASSETS	(C)	8	13	19	22	23	29	35	42	52	60	67	70	74	80	90	96	102	110	120	128	136	144	152	156	0
QTY OVER (+) OR SHORT (-)		+6	+4	+6	+8	+5	+4	+5	+9	0	0	-4	-3	-2	0	-6	-6	-2	-10	-8	-8	-4	-2	+2	0	0
D. REMARKS		E.		RQMT	(QTY)			<u> </u>	TOTAL	RQM	Г	INSTAL	LED		HAND			99 & PR			UNFL	JNDED				
Delivery and installation of 5 units was complete		1.	APPN	-	1810 (	OP,N)				161		5		AS OF	7/1 /96 5	)	UNI	DELIVE 97				54		1		
			2. APPN -																							1
			3. PROCUREMENT LEADTIME								ADMIN 6 m	I onths	-	INITIA	L ORDI	ER 12 mont	ns			REOR		nonths				

DD for 2447, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO 156 PAGE NO 7

# **UNCLASSIFIED**

						SED REQUIRE ENT SHEET-IN P-23A	STALLA						DATE	February 199	)7
APPROPRIATION Other Procu	uremen	t, Navy	ment					P-1 ITEM NOME Surface Tom (PEO(CU)) (B	ahawk Si	upport Equip		45A)		ATWCS	
1ST QTR		2ND QTR		3RD QTR		4TH QTR		1ST QTR		2ND QTR		3RD QTR		4TH QTR	
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
	FY 1997 FY 1998  1 ICSTF 1 DDG51 1 ICSTF 1 CG70 1 CG69 1 CG73														
SWEF LAD	1 1	ICSTF DD980 DDG58 SWEF KPT DD	1 1 1 1 2 1	DDG51 CG62 DD992	1 1 2	ICSTF	1	CG70 DDG62 DDG55 CG66	1 1 1 1	CG69 DDG54 LANT ACSC PAC	1 1 2 1 2	CG73 CG60 DD973 DDG64	1 1 2 1	DDG52 DDG64	2 1
			F	Y 1999			·		•		FY 2	000	•		
DD991 DDG59 CG67 CG54 DD975 DDG60 CG63 CG56 DD985 CG68	2 2 2 1 2 2 2 2 2 2	CG59 DD978 DDG61 DD964	2 2 2 2	CG65 DDG55 CG64 DD963 DDG63 CG58	2 1 2 2 2 2 2	DDG53	2	DDG70 CG53	1 2	DDG56 CG62	2 2	DD981 DD968 CG60 DD980 CG72 DDG65 CG73 DD987	2 2 2 2 2 2 2 2 2	CG57 DDG71 DD965	2 2 2

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# **UNCLASSIFIED**

						SED REQUIRE IENT SHEET-IN P-23A	STALLA						DATE	February 199	7
APPROPRIAT Other Proc	uremen		ment					P-1 ITEM NOME Surface Tom (PEO(CU)) (B	ahawk Si	upport Equip		45A)		ATWCS	
1ST QTR		2ND QTR	mem	3RD QTR		4TH QTR		1ST QTR	LI. 32300	2ND QTR		3RD QTR		4TH QTR	
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
		l	F	Y 2001							FY 2	002			
CG52	2	DD966 DD989 DDG51 DDG62 DD977 DD988 DD970 CG66	2 2 2 2 2 2 2	DD997 DD982 CG70 DD971	2 2 2 2	DDG68 DD969 CG55 DDG54	2 2 2 2	CG69 DD972	2 2	DDG58 DDG66 DDG67	2 2 2	DD967 DDG57	2 2	DDG69 CG54 CG71	2 2 2
	1		1		1		P-1 SF	II HOPPING LIST				CLASSIFICA	TION:		1

ITEM NO. 156 PAGE NO. 8a

	BUDO	GET ITEM J	USTIFICATION	ON SHEET			DATE:				
			P-40				Februa	ry 1997			
APPROPRIATION/BUDG	GET ACTIVITY		P-1 ITEM NOM	IENCLATURE							
Other Procuremer	nt, Navy		Submarin	ne Tomahaw	k Support E	quipment					
<b>BA4/Ordnance Su</b>	pport Equip	ment	(J45B) (PE	O(CU)) (BLI:	525500)						
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003			
QUANTITY	_	•	_	_	_	_	•				
COST											
(In Millions)	\$1.3	\$0.0	\$4.1	<b>\$6.0 \$7.6 \$8.0 \$6.6</b>							

Submarine-Advanced Tomahawk Weapon Control System (Sub-ATWCS) provides open system architecture, extensive hardware (TAC-X processors, Common Display Console Unit, racks, cables, connectors, etc.), and software commonality with surface systems. Sub-ATWCS is a prerequisite for the Tomahawk Baseline Improvement Program in submarines.

The FY 1998 and FY 1999 programs procure necessary hardware to accommodate commonality and interface requirements between Sub-ATWCS and the CCS-MK2 Fire Control Systems for Tomahawk capable class submarines. The increased funding during FY 1999 and out reflects the need to procure in greater numbers the multiple items of equipment identified above based on a time-phased requirements schedule.

P-1 SHOPPING LIST

CLASSIFICATION:

DD Form 2454, JUN 86 ITEM NO. 157 PAGE NO. 1

		WEAPONS	SYSTE	M COST ANALY	/SIS				DATE:	
			Р	-5					Fe	bruary 1997
Other	PRIATION/BUDGET ACTIVITY  Procurement, Navy  rdnance Support Equipment			P-1 ITEM NOMEN		omarine Toma		Support Equip (BLI: 525500)	ment	
					TOTAL (	COST IN THOUSAN	NDS OF I	DOLLARS		
COST	ELEMENT OF COST	IDENT CODE		FY 1996		FY 1997		FY 1998		FY 1999
			QTY	TOTAL COST	OTAL COST QTY TOTAL C		QTY	TOTAL COST	QTY	TOTAL COST
02000	Submarine-ATWCS	QT		1,347		0		1,425		4,060
				1,347		0		1,425		4,060

DD FORM 2446, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO. 157 PAGE NO. 2

		BUDGETI	TEM JUST	IFICATIO	N SHEET		DATE: February	1997
APPROPRIATION/BUI	GET ACTIVIT	Υ		P-1 ITEM N	OMENCLATU	RE		
OTHER PROCURE ORDNANCE SUPP	•			VERTICA	L LAUNCH	SYSTEM (1	45A) - 526	
	1996	1997	1998	1999	2000	2001	2002	2003
QUANTITY								
COST (In Millions)	\$9.2	\$12.7	\$7.6	\$7.1	\$6.5	\$4.2	\$7.1	\$7.3

Funding in this line will be used to procure ORDALTS for Vertical Launch System (VLS )for Surface Combatant Ships, VLS Support, and Test and Handling Equipment for SSN-688 Class Submarines.

The dollar breakout between the Surface and Submarine portions is as follows:

FISCAL YEAR	1996	1997	1998	1999	2000	2001	2002	2003
SURFACE VLS (EQUIP) (\$000	\$4,237	\$5,410	\$2,866	\$451	\$515	\$156	\$159	\$163
SURFACE VLS (INSTAL) (\$00	<u>\$963</u>	<u>\$2,862</u>	<u>\$447</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
SUBTOTAL	\$5,200	\$8,272	\$3,313	\$451	\$515	\$156	\$159	\$163
SUB VLS (EQUIP)(\$000)	\$2,060	\$2,860	\$2,516	\$3,361	\$2,791	\$3,344	\$6,676	\$6,382
SUB VLS (INSTAL) (\$000)	<u>\$1,914</u>	<u>\$1,536</u>	<u>\$1,762</u>	<u>\$3,276</u>	<u>\$3,212</u>	<u>\$721</u>	<u>\$289</u>	<u>\$721</u>
SUBTOTAL	\$3,974	\$4,396	\$4,278	\$6,637	\$6,003	\$4,065	\$6,965	\$7,103
TOTAL (\$000)	\$9,174	\$12,668	\$7,591	\$7,088	\$6,518	\$4,221	\$7,124	\$7,266

P-1 SHOPPING LIST ITEM NO. 15 PAGE NO. 1 CLASSIFICATION:

DD Form 2454, JUN 86

BUDGET ITEM JUSTIFIC	CATION SHEET	DATE:
P-40 (CONTINUED)		February 1997
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENO	LATURE
OTHER PROCUREMENT, NAVY/BA-4		
ORDNANCE SUPPORT EQUIPMENT	AUNCH SYSTEM (145A) - 5260	

### SURFACE

VERTICAL LAUNCHING SYSTEM - The Vertical Launching System (VLS) is a missile launching system for surface combatants, capable of launching missiles for all warfare areas and adaptable to present and future weapons control systems. OPN funds are for procurement of SPRUANCE (DD 963) Class ship sets (one 61-cell VLS launcher). Each VLS launcher holds 61 missiles with complete flexibility in missile loadout; any missile type adapted for Vertical Launch can be loaded/fired in any cell. Thus, any mix of TOMAHAWK Land-attack or Anti-ship missiles can be carried. This flexibility of loadout allows the ship's mission to be specifically tailored to its current operational requirements. The TOMAHAWK missiles are controlled by the TOMAHAWK Weapons Control System. The modular design of the VLS makes each module essentially a stand-alone missile launching system, greatly increasing system reliability and availability.

VLS ORDALTS - Improvements/ changes required to resolve problems aboard the operational ships of the DD963, CG-47 and DDG-51 Class and OPN launchers in production.

Present requirements are to provide two 61-cell launchers for CG-47 Class ships, one launcher for DD-963 Class ships, and one 61-cell and one 29-cell launcher for DDG-51 Class ships. Delivery of the VLS commenced in FY 85 for the CG-47 Class ships, in FY 86 for the DD-963 Class ships and in FY 87 for the DDG-51 Class Ships.

### **SUBMARINES**

The SSN-688 Class Vertical Launch System (VLS) is a weapons system which provides the SSN-688 Class submarines with the capability to carry, status, preset, and launch up to twelve TOMAHAWK cruise missiles from vertical tubes located in the forward non-pressure hull area. This weapons system is being added to all SSN-688 Class submarines starting with the SSN-719 in FY 86 without degrading any existing SSN-688 Class weapons system capabilities or submarine operational characteristics. The VLS can launch two different types of TOMAHAWK cruise missiles: conventional land attack and conventional anti-ship. The TOMAHAWK cruise missile was modified to allow operation in a vertical orientation. VLS is being procured and installed under the SCN appropriation. VLS support, test, and handling equipment are provided by this OPN P-1 line item.

P-1 SHOPPING LIST

**CLASSIFICATION:** 

DD Form 2454, JUN 86

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PAGE NO. - 2

BUDGET ITEM JUSTIFIC	CATION SHEET	DATE:
P-40 (CONTINUED)		February 1997
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENC	CLATURE
OTHER PROCUREMENT, NAVY/BA-4		
ORDNANCE SUPPORT EQUIPMENT	VERTICAL LA	AUNCH SYSTEM (145A) - 5260

### SUBMARINES

The AUR Simulator is a test and training device that is loaded into a missile tube to simulate an operational Encapsulated TOMAHAWK Vertical All Up Round (AUR) allowing the VLS to be exercised through the launch phase without actually launching a missile. The AUR Simulator consists of an AUR Electronic Simulator enclosed in a Volumetric Shape. The AUR Electronic Simulator (AURES) simulates AUR operations either while installed in the operational AUR, provides a watertight, pressure-proof enclosure for the AURES, and interfaces with the missile tube in a manner similar to an operational AUR so that no damage to the tube will occur during simulation. The missile tube bore gauge is used to verify the proper missile tube clear bore to ensure compatibility with the TOMAHAWK AUR. The AUR loader is a funnel-shaped device which mounts to the missile tube muzzle face. It acts as a guide for the AUR and provides the mechanism to push the AUR down during loading and pull the AUR out of the missile tube during unloading. The Missile Tube Control Panel (MTCP) displays the status of the missile tubes, controls the operation of the missile tube hatches, and displays the status of various subsystems.

With the exception of the MTCP which has been approved for full production (AFP), VLS support equipment is not expected to be used by the Fleet. Equipments will be utilized by new construction shipyards, development laboratories, primary support activities, squadron support tenders and SSN overhaul shipyards.

The budget reflects the transfer of design services into the appropriate P-1 line item in accordance with full funding policy FY98 and out.

P-1 SHOPPING LIST

**CLASSIFICATION:** 

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		WEAPON EXHIBIT		EM COST A	NALY	SIS			DATE: Februa	ary 1997
OTHE	OPRIATION/BUDGET ACTIVITY R PROCUREMENT, NAVY ORDNANCE SUPPORT EQUIP	MENT			VERT		CH SY	STEM (145A)		)
COST	ELEMENT OF COST	IDENT CODE	FY		FY	1997	FY	S OF DOLLARS	FY	
			QTY	FOTAL COS	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COS
	SURFACE N86									
5A003	VLS ORDALTS			2,238		4,003		1,423		318
5A830	PRODUCTION ENGINEERING			1,577		1,002		1,245		108
5A870	SPEC TOOLING/TEST EQUIP			143		124		141		
5A900	CONSULTING SERVICES			279		281		57		25
5A5IN	FMP INSTALLATION			963		2,862		447		
	TOTAL			5,200		8,272		3,313		451

P-1 SHOPPING LIST

**ITEM NO. 158** 

PAGE NO. 4

CLASSIFICATION:

	UNCLASSIFIED									
	WEAPON SYSTE EXHI			NALYSIS					DAT FEB	E: RUARY 1997
	ON/BUDGET ACTIVITY							TURE/SUBHEAD		L LAUNCH
OTHER	PROCUREMENT, NAVY/BA-4								ICA	L LAUNCH
						SYSTEM	/845	δA		
					TOT	AL COST IN T	HOUS	SANDS OF DO	LLARS	;
COST	ELEMENT OF COST	IDENT		FY96		FY97		FY98		FY99
CODE		CODE								
			QTY	TOTAL COST	QTY	TOTAL COST	QTY 	TOTAL COST	QTY	TOTAL COST
	SUBMARINES N-87									
5A102	AUR ELECTRONIC SIMULATOR (AURES) MI	A	63	\$580	12	\$171	18	\$313	40	\$722
5A107	LOADING SUPPORT EQUIPMENT	A		0		0		0	5	78:
5A116	FACILITY HARDWARE	A		131		0		256		1,12
5A118	SHIPALT MATERIAL	A	9	1,349	12	2,689	13	1,947	6	735
	MATERIAL TOTAL			\$2,060		\$2,860		\$2,516		\$3,36
5AINS	FMP INSTALLATIONS			1,914		1,536		1,260		2,61
5ADSA	DESIGN AGENT							502		\$661.0
	INSTALLATION TOTAL			\$1,914		\$1,536		\$1,762		\$3,27
	GRAND TOTAL			\$3,974		\$4,396		\$4,278		\$6,63
				P-1 SHOPPING LIST				CLASSIFICATIO	N:	EXHIBIT F

### UNCLASSIFIED

	BU	DGET PROCUREMEN EXH	NT HISTORY IIBIT P-5A	AND PLAN	NING				DATE: FEBRUA	ARY 19	97
	ATION/BUDGET ACTIVITY R PROCUREMENT	Γ, NAVY/BA-4						CURE/SUBHE		LAU	NCH
						SYSTE	EM/845	4			
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLI NOW	SPEC REV REQ'D	IF YES WHEN AVAILABI
<u>5A102</u>	AUR ELECTRONIC Simulator MK101										
	FY96 Remote Weapons Sel Kits	COMPETITIVE/NUWC	COMPET	NUWC	11/95	4/96	63	\$14,127	YES	NO	N/A
	FY97 Remote Weapons Sel Kits	COMPETITIVE/NUWC	COMPET	NUWC	11/96	4/97	12	\$14,284	YES	NO	N/A
	FY98 Remote Weapons Sel Kits	COMPETITIVE/NUWC	COMPET	NUWC	11/97	4/98	15	\$14,732	YES	NO	N/A
	Blk IV Kit	COMPETITIVE/NUWC	COMPET	NUWC	11/97	4/98	3	\$30,675	YES	NO	N/A
	FY99 Remote Weapons Sel Kits	COMPETITIVE/NUWC	COMPET	NUWC	11/98	4/99	30	\$14,848	YES	NO	N/A
	Blk IV Kit	COMPETITIVE/NUWC	COMPET	NUWC	11/98	4/99	10	\$27,656	YES	NO	N/A
<u>5A107</u>	LOADING SUPPORT E	QUIPMENT									
	FY99 Platform Cradles	COMPETITIVE/NUWC	СОМРЕТ	NUWC	11/98	4/99	5	\$156,200	YES	NO	N/A
EMARKS	S:										
			P-1 SHOP	PING LIST				CLASSIFICAT	ION:		EXHIBIT P-

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### UNCLASSIFIED

	BU	DGET PROCUREME		AND PLAN	NING				DATE:	DT: 40	^=
		EXF	IIBIT P-5A						FEBRUA	XKY 195	97
PPROPRI <i>A</i>	ATION/BUDGET ACTIVITY					P-1 ITEM N	OMENCLAT	TURE/SUBHE	AD		
THE	R PROCUREMENT	T, NAVY/BA-4				SSN 68	88 CLAS	SS VER	TICAL	LAUI	NCH
						SYSTE	EM/845	A			
			CONTRACT			DATE OF			SPECS	SPEC	IF YES
CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	METHOD & TYPE	CONTRACTED BY	AWARD DATE	FIRST DELIVERY	QUANTITY	UNIT COST	NOW NOW	REV REQ'D	WHEN AVAILABLI
<u>5A118</u>	SHIPALT MATERIAL										
	FY96	COMPETITIVE AND WAS	COMPET	NUME	11/05	4/96	2	¢45,000	VEG	NO	NY/A
	Self Lubricated Bearings	COMPETITIVE/NUWC	COMPET	NUWC	11/95	4/96	3	\$45,000	YES	NO	N/A
	Tube Control Panel	COMPETITIVE/NUWC	COMPET	NUWC	11/95	4/96	6	\$324,333	YES	NO	N/A
	FY97 Self Lubricated Bearings	COMPETITIVE/NUWC	COMPET	NUWC	11/96	4/97	4	\$45,321	YES	NO	N/A
	Sell Lubricated Bearings	COMPETITIVE/NUWC	COMPET	NUWC	11/90	4/97	4	\$45,521	IES	NO	IN/A
	Tube Control Panel	COMPETITIVE/NUWC	COMPET	NUWC	11/96	4/97	8	\$313,414	YES	NO	N/A
	FY98										
	Self Lubricated Bearings	COMPETITIVE/NUWC	COMPET	NUWC	11/97	4/98	7	\$48,714	YES	NO	N/A
	Tube Control Panel	COMPETITIVE/NUWC	COMPET	NUWC	11/97	4/98	4	\$344,878	YES	NO	N/A
	Access Plates	COMPETITIVE/NUWC	COMPET	NUWC	11/97	4/98	1	\$35,490	YES	NO	N/A
	Missile Tube Control Panel	COMPETITIVE/NUWC	COMPET	NUWC	11/97	4/98	1	\$191,000	YES	NO	N/A
	<u>FY99</u>										
	Self Lubricated Bearings	COMPETITIVE/NUWC	COMPET	NUWC	11/98	4/99	5	\$74,000	YES	NO	N/A
	Tube Control Panel	COMPETITIVE/NUWC	COMPET	NUWC	11/98	4/99	1	\$365,000	YES	NO	N/A
EMARK:	S:										
	6-1 IIII. 87		P-1 SHOPI					CLASSIFICAT	ION:		EXHIBIT P-5

DD Form 2446-1, JUL 87

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UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED P3A	INDIVIDI	JAL MODIF	ICAT!	ON													DATE:	FEBRU	IADV 10	007
	INDIVIDU	AL MODIF	ICATI	ON													DATE:	FEBRU	JAKY IS	197
Vertical Launch Systems/845A																				
	BRICATED BEARIN	IGS SHIPAI	LT SS	N 3936K	(5A11	8)														
MODELS OF SYSTEM AFFECTERSSN 719-	-725, 750-773																			
DESCRIPTION/JUSTIFICATION: THIS MO	DD FIXED STUCK H.	ATHCES DU	URING	CYCLIN	NG AN	ND MISS	ILE L	AUNCH	WITHO	OUT N	EED	FOR GR	EASI	NG						
DEVELOPMENT STATUS/MAJOR DEVELO	OPMENT MILESTON	ES:															TO	TO		
		FY96															COMP	COMP	TOTAL	TOTAL
	OT	Y & PRIOR	OTV	EVOZ	OTV	EVOS	OTV	EVOO	OTV E	voo.	OTV	EVOI	OTV	EVO2	OTV	EV02	QTY	COST	OTY	COST
FINANCIAL PLAN (IN MILLIONS)	4.	1 de l'ideoi	· v	/ /	Ų.,	1170	Ų.,	11//	V	100	V		Ų.,	1 102	ν	1103	Ų.,	CODI	Ų.,	CODI
FINANCIAL PLAN (IN MILLIONS)																				
RDT&E																			0	0.000
PROCUREMENT	10	0.370	4	0.187	7	0.341	5	0.370	0 0	.000	0	0.000	0	0.000	0	0.000	0	0.000	26	1.268
OUANTITY	10		4		7		5												26	0.000
INSTALLATION KITS		,					-												0	0.000
INSTALLATION KITS NONRECURRING																			0	0.000
EQUIPMENT	11	0.370	4	0.187	7	0.341	5	0.370											26	1.268
EQUIPMENT NONRECURRING	.,	0.370	*	0.107	,	0.341	,	0.370											0	0.000
ENGINEERING CHANGE ORDERS																			0	0.000
DATA																			0	0.000
TRAINING EQUIPMENT																			0	0.000
SUPPORT EQUIPMENT																			0	0.000
OTHER																			0	0.000
INTERIM CONTRACTOR SUPPORT																			0	0.000
INSTALLATION OF HARDWARE																				
FY96 EQUIPMENT AND PRIOR	7	2.063	2	0.472															10	2.535
FY97 EQUIPMENT AND PRIOR	1	2.003	3	0.472	4	0.088													4	0.088
					4	0.088	-													
FY98 EQUIPMENT							7	1.844											7	1.844
FY99 EQUIPMENT									5 2	.152									5	2.152
FY00 EQUIPMENT																			0	0.000
FY01 EQUIPMENT																			0	0.000
FY02 EQUIPMENT																			0	0.000
FY03 EQUIPMENT																				
TO COMPLETE																			0	0.000
TOTAL INSTALLATION COST	7	2.063	3	0.472	4	0.088	7	1.844	5 2	.152	0	0.000	0	0.000	0	0.000	0	0.000	26	6.619
TOTAL PROCUREMENT COST		0.370		0.187		0.341		0.370	0.	.000		0.000		0.000		0.000		0.000		1.268
TOTAL COST		2.433		0.659		0.429		2.214	2.	.152		0.000		0.000		0.000		0.000		7.887
METHOD OF IMPLEMENTATION AIT		ADMINISTR										EADTIN		12 MON	THS					
	RIOR YEAR: 4/9			YEAR:			GET Y		4/97			ET YE								
PRODUCTION DELIVER DATE: P	RIOR YEAR: 2/9	5 CURI	RENT '	YEAR:	2/97	BUD	GET Y	EAR:	2/98	I	BUDG	ET YEA	AR 2:	2/99						
DIGMAN A AMIONI CONTENTINE																				
INSTALLATION SCHEDULE: INPUT =====>	PVoc	FY97		FY98		FY99		FY00	r	Y01		EVO		FY03		TC				
INPUT =====>	FY96		_		-		-					FY02					-	TOTAL		
THIS A PRIOR	1,2,3,4	1,2,3,4	-	1,2,3,4		1,2,3,4	-	1,2,3,4	1,	2,3,4		1,2,3,4		1,2,3,4		1,2,3,4	-	TOTAL		
FY96 & PRIOR	2	4,1		3														10		
FY97						4												4		
FY98								2,3,2										7		
FY99									2,	2,1								5		
FY00																				
FY01																				
FY02																				
FY03																				
OUTPUT ====>	FY96	FY97		FY98		FY99		FY00	F	Y01		FY02		FY03		TC				
	1,2,3,4	1,2,3,4		1,2,3,4	_	1,2,3,4		1,2,3,4	1.3	2,3,4		1,2,3,4		1,2,3,4		1,2,3,4	-	TOTAL		
FY96 & PRIOR	2	1,1, 1, 2	-	1, 2			-										-	10	-	
FY97						2.2												4		
FY98						2,2		1.2.2.2										7		
FY99								-,2,2,2		2.2.1								5		
FY00										-,-,•								,		
FY01																				
FY02																				
F102																				

Fig.   Part	CLASSIFICATION: UNCLASSIFIED																			
MODIELS OF SYSTEM APPEILS NOT THIS MODE PROD THE PROLUTE SIGNATURE SHOWS THE BEAT LONG ENGINEERS AND STREET HEAD PROLUTE SHOWS THE SHOWS		INDIV	IDUAL MODII	ICATION	1												DATE:	FEBRU	JARY 19	997
SMORE SAYSHA AFFECTE STATE 1779 FLAST NOR BETOM SHEED AFFECT STATE STATE STATE SHAPE STATE STATE SHAPE STATE STATE SHAPE STATE SHAPE STATE SHAPE STATE SHAPE STATE SHAPE																				
Control   Cont					SN 393	9 (5A118	9													
MARIE PRIME IS ISMAPLY POOR ACCESS TO ARR BITLESS, INAMELYTO NEEP AURIE NITE ALTO BETEN THAT PRIME TO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THAT PRIME THE NEEP AURIE NITE ALTO BETEN THAT PRIME THAT PRIM					re n	reposie	TRAC	DEL AND	TATATE	VCCC A D		IDIDI E								
EANCE LORSHAY OF DIFFERENTIAL PICESSIVE CNUT WITHOUT MILETONING.  10													IN SPE	CIEIED						
Part											,,,,,			JCH ILLD						
PRINCE																	TO	TO		
BIANACIA FLANDIN MILLIONS			FY96														COMP	COMP	TOTAL	TOTAL
PRIMER   1			QTY & PRIOI	R QTY F	Y97	QTY FY	798 QT	Y FY99	QTY	FY00	QTY	FY01	QTY	FY02	QTY	FY03	QTY	COST	QTY	COST
12   23   18   25   28   4   18   25   18   25   28   4   18   20   20   20   20   20   20   20   2	FINANCIAL PLAN (IN MILLIONS)																			
12   23   18   18   25   25   4   13   10   16   10   10   10   10   10   10																				
STALLATION KITS NONSECURING										0.000				0.000		0.000		0.000		
SYSTALIATION STIS NORSECURING					558				0	0.000	0	0.000	0	0.000	0	0.000	0	0.000		
SATIOLATION NETN NONECURENTO			12	o		*														
EQUIPMENT (10917)		IG																		
NAME   PRIOR			12 3.819	8 2	.558	4 1.:	380 1	0.365												
DATA   CRAINING SQUIPMENT																			0	0.000
TRAINIOS QUIPMENT																				
SUPPORT EQUIPMENT																				
NTERIM CONTRACTOR SUPPORT																				
NYTERIM CONTRACTOR SLIPPORT																				
NSTALLATION OF HARDWARE																				
PY96 EQUIPMENT ND PRIOR	INTERIM CONTRACTOR SUFFORT																		0	0.000
PVP EQUIPMENT	INSTALLATION OF HARDWARE																			
FYO EQUIPMENT	FY96 EQUIPMENT AND PRIOR			2	405	10 1.0	)53												12	1.458
FYO EQUIPMENT							8	1.109												
Prop Equipment   Prop									4	0.771									4	0.771
FYOLE QUIPMENT											1	0.343							1	0.343
FYOE QUIPMENT																				
FYOLOGINEST   1																				
TOTALINTALIZATION COST																			0	0.000
TOTAL INSTALLATION COST    1																			0	0.000
TOTAL PROCUREMENT COST    3 819	10 00000																			
METHOD F IMPLEMENTATION AIT   S.819   2.558   2.433   0.365   0.711   0.343   0.000   0.000   0.000   0.000   10.289	TOTAL INSTALLATION COST		0.000	2 0	.000	10 1.0	153 8	0.000	4	0.771	1	0.343	0	0.000	0	0.000	0	0.000	25	3.681
METHOD OF IMPLEMENTATION AIT  CONTRACT DATE:  PRODUCTION DELIVER DATE:  PROPRIOR YEAR:  CURRENT	TOTAL PROCUREMENT COST		3.819	2	.558	1.3	80	0.365		0.000		0.000		0.000		0.000		0.000		8.122
CONTRACT DATE: PRIOR YEAR: CURRENT YEAR: NA BUDGET YEAR: 497 BUDGET YEAR 2:  PRODUCTION DELIVER DATE: PRIOR YEAR: CURRENT YEAR: NA BUDGET YEAR: 298 BUDGET YEAR 2:  PRODUCTION DELIVER DATE: PRIOR YEAR: CURRENT YEAR: NA BUDGET YEAR: 298 BUDGET YEAR 2:  PSTALLATION SCHEDULE: INPUT	TOTAL COST		3.819	2	.558	2.4	133	0.365		0.771		0.343		0.000		0.000		0.000		10.289
CONTRACT DATE: PRIOR YEAR: CURRENT YEAR: NA BUDGET YEAR: 497 BUDGET YEAR 2:  PRODUCTION DELIVER DATE: PRIOR YEAR: CURRENT YEAR: NA BUDGET YEAR: 298 BUDGET YEAR 2:  PRODUCTION DELIVER DATE: PRIOR YEAR: CURRENT YEAR: NA BUDGET YEAR: 298 BUDGET YEAR 2:  PSTALLATION SCHEDULE: INPUT																				
RNTALLATION SCHEDULE:   FY96   FY97   FY98   FY99   FY90   FY01   FY02   FY03   TC														12 MON	THS					
DISTALLATION SCHEDULE:   FY96																				
NPUT =====>   FY96   FY97   FY98   FY90   FY01   FY02   FY03   TC	PRODUCTION DELIVER DATE:	PRIOR YEAR:	CUR	RENT YE	AR:	N/A	BUDGET	YEAR:	2/98	8	BUD	GET YE	AR 2:							
NPUT =====>   FY96   FY97   FY98   FY90   FY01   FY02   FY03   TC	INSTALLATION SCHEDULE:																			
1.2.34   1		FY96	FY97	F	Y98	F	799	FY00		FY01		FY02		FY03		TC				
FY96 & PRIOR													•		•		•	TOTAL		
FY98	FY96 & PRIOR		1,1,4						_		-						_	12	-	
FY99 FY01 FY02 FY03 OUTFUT ====> FY96 FY97 FY98 FY99 FY97 FY98 FY97 FY98 FY99 FY90 FY97 FY98 FY99 FY90 FY90 FY90 FY90 FY90 FY90 FY90	FY97					4,4												8		
FY00 FY01 FY02 FY03 OUTPUT ====> FY96 FY97 FY98 FY99 FY00 FY01 FY96 FY01 FY96 FY01 FY97 FY98 FY99 FY00 FY01 FY02 FY03 FY03 FY03 FY03 FY03 FY03 FY04 FY05 FY05 FY06 FY07 FY07 FY08 FY08 FY09 FY07 FY08 FY08 FY09 FY00 FY01 FY01 FY02 FY07 FY08 FY08 FY08 FY09 FY07 FY08 FY08 FY08 FY08 FY09 FY00 FY00 FY00 FY00 FY00 FY00 FY00								4												
FY01 FY02 FY03  OUTPUT ====>  FY96 FY97 FY98 FY99 FY00 FY01 FY01 FY02 FY07 FY08 FY07 FY08 FY07 FY08 FY08 FY09 FY00 FY01 FY01 FY01 FY01 FY01 FY01 FY01										1								1		
FY02 FY03 OUTPUT> FY06 FY07 FY08 FY09 FY00 FY01 FY02 FY03 TC  TOTAL FY07 FY09 FY09 FY09 FY00 FY01 FY02 FY03 FY03 FY03 FY03 FY00 FY01 FY01 FY01 FY01 FY01 FY02 FY07 FY08 FY08 FY09 FY00 FY01 FY01 FY02 FY07 FY08 FY08 FY09 FY08 FY09 FY00 FY00 FY00 FY00 FY00 FY00 FY00																				
FY03  OUTPUT ====>  FY96  FY97  1.2.3.4																				
OUTPUT ====>																				
FY96 & PRIOR 1.2.3.4 1		FV96	FY97		Y98	E	799	FYOO		FY01		FY02		FY03		TC				
FY96 & PRIOR 1, 1 2,2,3,3 12 FY97 1,2,2,3 8 FY98 1,1,1,1 4 FY99 1 1 1 1 FY00 FY01 FY02	001101										-						-	TOTAL		
FY97 1.2.2.3 8 FY98 1.1.1.1 4 FY99 1 1 FY00 FY01 FY01	FY96 & PRIOR						_		_								_		_	
FY99 I I FY00 FY01 FY02	FY97					1,2,	2,3											8		
FY00 FY01 FY02								1,1,1,												
FY01 FY02										1								1		
FY02																				

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CLASSIFICATION: UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED DATE: FEBRUARY 1997 INDIVIDUAL MODIFICATION Vertical Launch Systems/845A MODIFICATION TITLE: INSTALL HULL ACCESS PLATES OUTBOARD OF MISSILE TUBES 15 AND 16 SHIPALT SSN 3989K (5A118) MODELS OF SYSTEM AFFECTED:
DESCRIPTION: THIS MOD ALLOWS THE WEAPON DIFFERENTIAL PRESSURE TO BE MAINTAINED PER REQUIRED SPECIFICATION: THIS MOD ALLOWS THE WEAPON DIFFERENTIAL PRESSURE TO BE MAINTAINED PER REQUIRED SPECIFICATION OF VLS INTERFACE CONTROL DOCUMENT (ICD) TO TO COMP TOTAL TOTAL DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: QTY & PRIOR QTY FY97 QTY FY98 QTY FY99 QTY FY00 QTY FY01 QTY FY02 QTY FY03 QTY COST QTY COST FINANCIAL PLAN (IN MILLIONS) RDT&E 0.000 PROCUREMENT QUANTITY 0 0.000 7 0.110 7 0.116 7 0.120 9 0.158 7 7 7 9 0.381 INSTALLATION KITS INSTALLATION KITS NONRECURRING 0.000 0.381 0.000 0.000 0.000 0.000 EQUIPMENT (U9017) EQUIPMENT NONRECURRING  $1 \quad 0.035 \quad 0 \quad 0.000 \quad 7 \quad 0.110 \quad 7 \quad 0.116 \quad 7 \quad 0.120 \quad 9 \quad 0.158$ ENGINEERING CHANGE ORDERS DATA TRAINING EOUIPMENT SUPPORT EQUIPMENT 0.000 OTHER (U9017)
INTERIM CONTRACTOR SUPPORT 0.000 NSTALLATION OF HARDWARE FY96 EQUIPMENT AND PRIOR FY97 EOUIPMENT 0.000 0.046 0.000 0.465 0.217 FY98 EQUIPMENT FY99 EQUIPMENT FY00 EQUIPMENT FY01 EQUIPMENT FY02 EQUIPMENT FY03 EQUIPMENT 0.000 TO COMPLETE 0.000 TOTAL INSTALLATION COST 31 0.728 TOTAL PROCUREMENT COST 0.000 0.000 0.000 0.000 0.110 0.116 0.346 TOTAL COST PRODUCTION LEADTIME: 12 MONTHS BUDGET YEAR 2: METHOD OF IMPLEMENTATION AIT ADMINISTRATIVE LEADTIME: 8 MONTHS PRIOR YEAR: BUDGET YEAR: CONTRACT DATE: CURRENT YEAR: PRODUCTION DELIVER DATE: PRIOR YEAR: INSTALLATION SCHEDULE:  $\frac{\text{FY96}}{1,2,3,4} \quad \frac{\text{FY97}}{1,2,3,4} \quad \frac{\text{FY98}}{1,2,3,4} \quad \frac{\text{FY99}}{1,2,3,4} \quad \frac{\text{FY00}}{1,2,3,4} \quad \frac{\text{FY01}}{1,2,3,4} \quad \frac{\text{FY02}}{1,2,3,4} \quad \frac{\text{FY03}}{1,2,3,4} \quad \frac{\text{TC}}{1,2,3,4} \quad \frac{\text{TOTAL}}{1,2,3,4}$ INPUT ===== FY96 & PRIOR FY97 FY98 FY99 FY00 FY01 FY02 FY03 
 FY97
 FY98
 FY99
 FY00
 FY01

 1,2,3,4
 1,2,3,4
 1,2,3,4
 1,2,3,4
 1,2,3,4

 1,1,1,2
 OUTPUT ====> TOTAL FY96 & PRIOR FY97 FY98 FY99 FY00 FY01 3.4 FY02 FY03

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CLASSIFICATION: UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED															EEDDI		0.00
P3A	INDIVII	DUAL MODIF	ICATION											DATE:	FEBRU	JARY 1	197
Vertical Launch Systems/845A																	
	E TUBE CONTROL	PANEL															
MODELS OF SYSTEM AFFECTEESSN 719																	
DESCRIPTION/JUSTIFICATION: THIS AI	LLOWS THE WEAF	ON DIFFERE	NTIAL PRESS	JRE TO BE	MAINTA	INED P	ER REQUIF	RED									
SPECIFICATION OF VLS INTERFACE CO	NTROL DOCUMEN	T (ICD)															
DEVELOPMENT STATUS/MAJOR DEVEL	OPMENT MILESTO	ONES:												TO	TO		
		FY96												COMP	COMP	TOTAL	TOTAL
	(	TY & PRIOR	QTY FY97	QTY FY98	QTY	FY99	QTY FY00	QTY	FY01	QTY	FY02	QTY	FY03	QTY	COST	QTY	COST
FINANCIAL PLAN (IN MILLIONS)	_																
RDT&E																	
PROCUREMENT		0.000	0 0.000	1 0 191	0	0.000	7 0.471	0	0.000	0	0.000	0	0.000	0	0.000	8	0.662
QUANTITY																0	0.000
INSTALLATION KITS																0	0.000
INSTALLATION KITS NONRECURRING																0	0.000
EQUIPMENT (U9017)				1 0.191	0	0.000	7 0.471	0	0.000							8	0.662
EQUIPMENT NONRECURRING				. 0.191		0.000	, 0.4/1	J	5.000							0	0.002
ENGINEERING CHANGE ORDERS																0	0.000
DATA																0	0.000
TRAINING EQUIPMENT																0	0.000
SUPPORT EQUIPMENT																0	0.000
OTHER (U9017)																0	0.000
INTERIM CONTRACTOR SUPPORT																0	0.000
INSTALLATION OF HARDWARE																	
FY96 EQUIPMENT AND PRIOR																	
FY97 EOUIPMENT																0	0.000
FY98 EQUIPMENT								- 1	0.040							1	0.000
FY99 EQUIPMENT																0	0.000
FY00 EQUIPMENT										7	0.347					7	0.347
FY01 EQUIPMENT										,	0.547					0	0.000
FY02 EQUIPMENT																0	0.000
FY03 EQUIPMENT																0	0.000
TO COMPLETE																0	0.000
TO COMPLETE																0	0.000
TOTAL INSTALLATION COST		0.000	0.000	0.000		0.000	0.000	. 1	0.040	7	0.347	0	0.000	0	0.000	8	0.387
TOTAL INSTALLATION COST		0.000	0.000	0.000		0.000	0.000		0.040		0.347	0	0.000	- 0	0.000		0.367
TOTAL PROCUREMENT COST		0.000	0.000	0.191		0.000	0.471		0.000		0.000		0.000		0.000		0.662
TOTAL COST		0.000	0.000	0.191		0.000	0.471		0.040		0.347		0.000		0.000		1.049
IOTAL COST		0.000	0.000	0.171		0.000	0.471		0.040		0.347		0.000		0.000		1.049
METHOD OF IMPLEMENTATION AIT		ADMINISTR	ATIVE LEAD	TIME: 9 MON	PTHE		PRODUC	TION I	EADTE	MIC.	12 MO	NTHE					
	PRIOR YEAR:		ENT YEAR:		DGET YE	24 D.	4/98		GET YE.		12 MO	NIIIS					
	PRIOR YEAR:		ENT YEAR:		DGET YE		4/98 2/99		GET YE.								
PRODUCTION DELIVER DATE:	PRIOR YEAR:	CURE	ENT YEAR:	BU	DGET YE	:AR:	2/99	BUD	GET YE.	AR 2:							
INSTALLATION SCHEDULE:																	
INPUT =====>	FY96	FY97	FY98	FY99		FY00	FY01		FY02		FY03		TC				
INFOI ======>	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4		1,2,3,4	1,2,3,4		1,2,3,4		1,2,3,4	-	1,2,3,4	-	TOTAL		
FY96 & PRIOR	1,2,3,4	1,2,5,4	1,2,3,4	1,2,3,4		1,2,5,4	1,2,3,4	+	1,2,5,4		1,2,3,4	-	1,2,5,4	-	TOTAL	-	
FY97																	
FY98						1									1		
FY99																	
FY00								2	2, 3						7		
FY01																	
FY02																	
FY03																	
OUTPUT ====>	FY96	FY97	FY98	FY99		FY00	FY01		FY02		FY03		TC	_			
	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,	4	1,2,3,4	1,2,3,	4	1,2,3,4		1,2,3,4	_	1,2,3,4	_	TOTAL	_	
FY96 & PRIOR	2	1,1,1,2															
FY97																	
FY98							1								1		
FY99																	
FY00									2,2,2,1						7		
FY01																	
FY01 FY02																	

CLASSIFICATION: UNCLASSIFIED											February 19	997	
P3A		MODIFICATION											
MODIFICATION TITLE: MK-41 Vertical Launching System O													
MODELS OF SYSTEM AFFECTED: MK-41 Vertical Launchi		h:lit fau maau mai		to an illan	auaatau ualiabilit		d	alailite e					
DESCRIPTION/JUSTIFICATION: Various ORDALTS for pro Funds are provided for the proc						, operability and	u mamtaina	ability.					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILEST		ell VLS launcher to	or dackfit di	uring overnaui							то	TO	
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILEST	ONES:											COMP TOTAL	TOTAL
	96 š PRI	OP E	Y 97	FY 98	FY 99	FY 00	FY (	01 FY	02	FY 03	QTY	COMP TOTAL	COST
FINIANOIAL BLAN (INIANILLIONIC)		QTY		QTY \$	QTY \$	QTY \$			/ \$	QTY \$	QII	COST QTT	0031
FINANCIAL PLAN (IN MILLIONS)	QTY \$	QIY	)	QII \$	QIT \$	QII \$	QTY S	) QII	Ф	QIY \$			
<u>RDT&amp;E</u>													
<u>PROCUREMENT</u>													
QUANTITY													
INSTALLATION KITS													
INSTALLATION KITS NONRECURRING	., -,						.,			., .,		.,	
EQUIPMENT	Var 7.0	) var	4.0	Var 1.4	Var 0.3	Var 0.4	Var (	0.1 Var	0.1	Var 0.1	continuing	Var	
EQUIPMENT NONRECURRING													
ENGINEERING CHANGE ORDERS													
DATA TRAINING FOLUDMENT													
TRAINING EQUIPMENT													
SUPPORT EQUIPMENT													
OTHER													
INTERIM CONTRACTOR SUPPORT													
INSTALLATION OF HARDWARE													
FY96 EQUIPMENT & PRIOR	Var 1.1	Var	2.9	Var 0.4								var	4.4
FY97 EQUIPMENT													
FY98 EQUIPMENT													
FY99 EQUIPMENT													
FY00 EQUIPMENT													
FY01 EQUIPMENT													
FY02 EQUIPMENT													
TO COMPLETE													
											continuing		
TOTAL INSTALLATION COST	1.1		2.9	0.4	0.0	0		0	0				
TOTAL PROCUREMENT COST	var 7.0	var	4.0	var 1.4	var 0.3	var 0.4	var (	0.1 var	0.1	var 0.1			
TOTAL COST	8.1	vai	6.9	1.8	0.3	0.4		0.1	0.1	0.1			
METHOD OF IMPLEMENTATION: AIT	No. Vi					PRODUCTION							
CONTRACT DATE: FY-9			: Various		FY-98: Various			FY-99: Vario					
PRODUCTION DELIVER DATE: FY-9	96 <u>Various</u>	FY-97	Various		FY-98: Various		ı	FY-99: <u>Vario</u>	us				
INSTALLATION SCHEDULE:													
INPUT =====>	FY95	FY96	FY97	FY98	FY99	FY00		FY01	TC	-			
	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3,	<u>4</u> 1,	, 2, 3, 4	1, 2, 3,	4		TOTAL	
OUTPUT ====>	FY95	FY96	FY97	FY98	FY99	FY00		FY01	TC	<del>-</del> .		TOTAL	
	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3,	<u>4</u> 1,	, 2, 3, 4	1, 2, 3,	4			
var = various													
vai – vailous													P-3A

CLASSIFICATION:	UNCLASSIFIED													Februa	ry 1997		
P3A			INDIVIDU	AL MODIFICATION	١												
MODIFICATION TITLE: MK-41	Vertical Launching System																
MODELS OF SYSTEM AFFEC	TED: DD-963 Class Ship																
DESCRIPTION/JUSTIFICATIO	N: The Vertical Launching System (VLS) is	a missile launching s	ystem for surface c	ombatants capable	e of launching r	nissiles for all warfa	are areas and a	daptable to	o present and	future we	eapons						
	ol systems. Funds are provided for the proc																
	JOR DEVELOPMENT MILESTONES: Full P													то	то		
														COMP	COMP	TOTAL	TOTAL
		95 &	PRIOR	FY 96	FY 9	97 FY	98	FY	99	FY	00	QTY	FY 01	QTY	COST	QTY	COST
FINIANICIAL DI ANI (INIANI LICA	10)	QTY	\$	QTY \$	QTY :		\$	QTY	\$	QTY		QTY		٠	0001	۹	0001
FINANCIAL PLAN (IN MILLION	15)_	QIT	4	QIT \$	QIT :	, QIT	Ф	QII	Ф	QII	\$	QII	э				
RDT&E																	
PROCUREMENT																	
QUANTITY		2	28.8													2	28.8
INSTALLATION KITS																	
INSTALLATION KITS NONRE	CURRING																
EQUIPMENT																	
EQUIPMENT NONRECURRIN	NG																
ENGINEERING CHANGE OR	DERS																
DATA																	
TRAINING EQUIPMENT																	
SUPPORT EQUIPMENT																	
OTHER																	
INTERIM CONTRACTOR SUI	PPORT																
INSTALLATION OF HARDWAF	<u>{E_</u>																
FY95 EQUIPMENT & PRIOR		2	21.3													2	21.3
FY96 EQUIPMENT																	
FY97 EQUIPMENT																	
FY98 EQUIPMENT																	
FY99 EQUIPMENT																	
FY00 EQUIPMENT																	
FY01 EQUIPMENT																	
TO COMPLETE																	
TOTAL INSTALLATION COST			21.3													2	21.3
TOTAL PROCUREMENT COS	т		28.8													2	28.8
TOTAL COST			50.1													2	50.1
TOTAL COST			30.1														50.1
METHOD OF IMPLEMENTATION	ON: Shipyard				ADMINIST	RATIVE LEADTIME	: 6 MONTHS	PR	ODUCTION LI	EADTIME	E: 18 MON	THS					
CONTRACT DATE:		FY-95:	N/A		FY-96:	N/A		FY-97:	N/A		FY-98:	N/A	_				
PRODUCTION DELIVER DATE	<b>:</b>	FY-95:	N/A		FY-96:	N/A		FY-97:	N/A		FY-98:	N/A					
INSTALLATION SCHEDULE:																	
	INPUT =====>	FY95	FY96	FY97		FY98	FY99		FY00		FY01		TC		TOTAL		
		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3,	_	1, 2, 3, 4	1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4	_	1, 2, 3, 4	-			
	FY-95 & PRIOR	1 1	1, 2, 0, 4	1, 2, 3,	<u> </u>	., _, 0, .	., 2, 3, 4		., 2, 0, 4		., 2, 0, 4	_	., 2, 3, 4	-	2		
	FY-96														-		
	FY-97																
	FY-98																
	OUTPUT ====>	EVOE	EVOE	EVO		FVQR	EVOO		EVOO		EV04		TC		TOTAL		
	OUIF 01 =====>	FY95 1, 2, 3, 4	FY96	FY97		FY98	FY99		FY00		FY01	_	TC 1, 2, 3, 4	-	TOTAL		
	EV of a DDIOD	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3,		1, 2, 3, 4	1, 2, 3, 4		1, 2, 3, 4		1, 2, 3, 4	_	1, 2, 3, 4	-			
	FY-95 & PRIOR FY-96		1 1												2		
	FY-97																
i e	FY-98															F	P-3A

ITEM NO. 158 PAGE 13 CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, Budget Item	Justification					Date		
							February 1997	
Appropriation (Treasury) C	Code/CC/BA/B	SA/Item Contro	ol Number		P-1 Line Item	Nomenclature		
Other Procurement, NAV	VY/1810/BA-	4/BLI#5355			Strategic Plan	tform Support I	Equipment	(84U9)
Program Element for Code	B Items:	Other Related I	Program Elemen	nts				
_								
	PY	CY	BY1	BY2	BY2+1	BY2+2	BY2+3	BY2+4
Cost (In Millions)	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Procurement Quantity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gross Cost	\$0	\$2.1	\$2.3	\$4.1	\$2.3	\$4.6	\$12.5	\$11.9
Total Procurement Cost	\$0	\$2.1	\$2.3	\$4.1	\$2.3	\$4.6	\$12.5	\$11.9

Funding in this P-1 line provides for the procurement of TRIDENT Platform Support Equipment, specifically for ordnance support, ship alterations and test equipment for the TRIDENT Submarine and TRIDENT Refit Facility (TRIREFFAC) located at Naval Submarine Bases (Bangor, WA and Kings Bay, GA) and other support facilities. The TRIDENT program has shifted from its modernization phase as defined by QE2 (Sonar/DWS Upgrade Program) to a program designed to maintain TRIDENT's capability to perform its defined mission. This will be accomplished via three programs:

1) Sustaining Capability, 2) Obsolete Equipment Replacement (OER) and 3) Common Capability.

SUSTAINING CAPABILITY PROGRAM - Funding of technical effort to continue to operationally support current Defensive Weapons Systems (DWS) hardware/software configurations in use on SSBN 726 Class Submarines.

OBSOLETE EQUIPMENT REPLACEMENT (OER) - Replacement of existing hardware/software that though functional has become operationally obsolete, is no longer in production or supportable with spare parts, has a high failure rate, or is no longer cost effective to maintain. OER hardware/software changes would be expected to provide a significant cost savings in reduced maintenance costs and would use Commercial-Off-The-Shelf (COTS) Technology where ever possible as long as all technical requirements are met. met.

COMMON CAPABILITY PROGRAM - Funding of technical efforts to support changes onboard TRIDENT or in conjunction with other fleet programs. Goal is to reduce number of hardware/software configuration in use on both SSBN 726 Class Submarines and within the fleet in general.

INSTALLATION (ORDNANCE) - Provides funding for ordnance equipment installation (commencing FY98) resulting from OER, Sustaining, or Common Capability Programs.

Exhibit P-5 Cost Analysis					Weapon S	ystem		Date:			
(Page 1) (FOR OSD REVIEW ONLY	)								February	1997	
Appropriation (Treasury) Code/CC/BA/F	SSA/Item Cor	itrol Nun	nber				ID Code	P-1 Line It	tem Nomen	clature	(84U9)
								Strategic	Platform S	Support Eq	uipment
Other Procurement, NAVY/1810/BA-	4/BLI#5355						U9221	Obsolete 1	Equipment	Replacem	ent (OER)
WBS COST ELEMENTS	Quantity	ID	PYs	PY	PY	CY	CY	BY1	BY1	BY2	BY2
Cost (In Millions) (Tailor to System/Item Rqmts)		Code	Total Cost	FY1996 Unit Cost	FY1996 Total Cost	FY1997 Unit Cost	FY1997 Total Cost	FY1998 Unit Cost	FY1998 Total Cost	FY1999 Unit Cost	FY1999 Total Cost
FY 1996											
NONE	0			0.000	0.000						
FY 1997											
SAWS 6" Countermeasures Devices	1	A				0.548	0.548				
Life Cycle Support Facility Rev. Test	1	A				1.513	1.513				
FY 1998											
MK2 Block 1C on 14 Hulls	2	A						1.156	2.312		
FY 1999											
MK2 Block 1C on 14 Hulls*	4	A								1.023	4.095
Total					.000		2.061		2.312		4.095

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Exhibit P-5a, Procurement History and	Planning			Weapon	System			DATE:		
(Page 1)				1	•				February	1997
Appropriation (Treasury) Code/CC/BA	/BSA/Item	Control N	umber				P-1 Line I	tem Nomencl	ature	(84U9)
							Strategic	Platform Su	pport Equi	ipment
Other Procurement, Navy/1810/BA	-4/BLI#535	55					U9221 Ol	osolete Equip	ment Rep	lacement (OER
					Contract				Specs	Date
WBS COST ELEMENTS		Unit	Location	RFP Issue	Method and	Contractor		Date of	Available	Revisions
(Tailor to System/Item Rqmts)	Qty	Cost	of PCO	Date	Type	and Location	Award Date	First Delivery	Now?	Available
Past Year ( or last yr of proc)										
FY-1996										
NONE										
FY-1997										
SAWS 6" Countermeasures Devices	1	.548	NAVSEA		PO/FP	TRIDENT Refit Fac./Kings Bay	10/97	2/98	YES	N/A
Life Cycle Support Facility Rev. Test	1	1.513	NAVSEA		PO/FP	NUWC NPT / Newport, RI	10/97	2/98	YES	N/A
FY-1998									+	
MK2 Block 1C on 14 Hulls	2	1.156	NAVSEA		PO/FP	Raytheon SSD/Newport, RI	12/97	4/98	YES	N/A
FY-1999										
MK2 Block 1C on 14 Hulls *	4	1.023	NAVSEA		PO/FP	Raytheon SSD/Newport, RI	12/98	4/99	NO	N/A

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(\*Average cost for MK2 Block 1C Category would be 1023.75 for 4095K total).

Exhibit P-5a, Procurement History and Plannin

### Strategic Platform Support Equipment / 84U9

MODELS OF SYSTEMS AFFECTED: TRIDENT Defensive Weapons System (CCS MK2 MOD3//DWS MK118 OER Upgrade)

TYPE MODIFICATION: Obsolete Equipment Replacement (OER) MODIFICATION TITLE: CCS MK2 MOD3/CCS MK2 Block 1C Upgrade on OHIO Class Submarine

DESCRIPTION/JUSTIFICATION: Replace obsolete equipment and achieve optimum commonality among submarine combat systems

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: OPEVAL = 7/94 PROJECT UNIT: U9221 Obsolete Equipment Replacement (OER)

### FINANCIAL PLAN: (TOA, \$ in Millions)

	Pr	ior Yrs	PY	-1	P	Y	C		В		BY		BY		BY	2+2	BY	2+3	BY	2+4	Т	C	TC	OTAL
	11.	101 115	FY1		FY1		FY1		FY1		FY1		FY2		FY2		FY2		FY2		To Com		10	
	Qty	\$	_		Qty						Qty		Qty	\$	Qty	1				\$	Qty		Qty	\$
RDT&E										2.56		1.70		1.80									0	6.06
PROC																								
Inst Kit NR																							0	0.00
A Kit																							0	0.00
Comp A																							0	0.00
Comp B																							0	0.00
Comp C																							0	0.00
Eqpt NR																							0	0.00
Eqpt									1	1.06	1	1.09	2	2.18	1	1.16	5	7.64	4	6.64			14	19.77
Eqpt A																							0	0.00
Eqpt B																							0	0.00
ECOs																							0	0.00
Data																							0	0.00
Training Eq									1	1.06	3	3.00			3	2.99	1	1.70	1	1.78			9	10.53
SE																							0	0.00
Other										0.19													0	0.19
Other																							0	0.00
Other																							0	0.00
ICS																							0	0.00
Install Cost																							0	0.00
Total Proc	0	0.00	0	0.00	0	0.00	0	0.00	2	2.31	4	4.09	2	2.18	4	4.15	6	9.34	5	8.42	0	0.00	23	30.49

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### **Strategic Platform Support Equipment / 84U9**

MODELS OF SYSTEMS AFFECTED: TRIDENT Defensive Weapons System (CCS MK 2 MOD 3 // DWS MK 118 OER Upgrade)

MODIFICATION TITLE: CCS MK 2 MOD 3 / CCS MK 2 Block 1C Upgrade on OHIO Class Submarines INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Engineered Availabilities

ADMINISTRATIVE LEADTIME: 12 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: Prior Year: <u>06/93</u> Budget Year 1: Budget Year 2: DELIVERY DATE: Prior Year: <u>06/95</u> Budget Year 1: Budget Year 2:

### (\$ in Millions)

Cost:	Prior `	Years	P	Y-1	P	Y	C	Ϋ́	В	Y1	В	Y2	BY	2+1	BY	72+2	ВУ	72+3	BYZ	2+4		ГС	To	otal	
			FY	1995	FY	1996	FY	1997	FY1	1998	FY1	999	FY2	000	FY	2001	FY	2002	FY2	003	To Co	omplete			
See Note #1 Below	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 96 & Prior																							0	0.00	ĺ
FY 97 Equipment																							0	0.00	
FY 98 Equipment													2	0.15									2	0.15	#1, a
FY 99 Equipment															4	0.45							4	0.45	#1, b
FY 00 Equipment																	2	0.60					2	0.60	
FY 01 Equipment																			2	0.25	2	0.30	4	0.55	
FY 02 Equipment																			2	0.50	4	1.40	6	1.90	#1, c
FY 03 Equipment																					5	2.00	5	2.00	#1, d
To Complete																							0	0.00	
																									1
Total Installation Cost	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.15	0	0.45	2	0.60	4	0.75	11	3.70	23	5.65	

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### Exhibit P-3a, Individual Modification

Note #1 CCS MK 2 Block 1C installation cost covered under ARCI / CCS MK 2 Block 1C installation during D-5 Conversion Period (SSBNs 730-733).

Note a Shows installation cost for 1 unit procured in FY98, 1 unit covered by Note #1.

**Note b** Shows installation cost for 3 units procured in FY99, 1 unit covered by Note #1.

Note c Shows installation cost for 3 units procured in FY02, 1 unit covered by Note #1.

Note d Shows installation cost for 3 units procured in FY03, 2 units covered by Note #1.

## **Strategic Platform Support Equipment / 84U9**

### **Installation Schedule**

mstanau	on Sched	uuie																									
	PY		C	Y			В	Y1			В	Y2			BY	2+1			BY	72+2			BY2	2+3 etc.		TC	Total
	FY1996		FY 19	97			FY19	98			FY1	999			FY	2000			FY	2001			FY20	002+etc.			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In																											
FY96 & Pr																											
FY97																											
FY98														0	1	1	0									0	2
FY99																		1	1	1	1					0	4
FY00																						1	0	1	0	0	2
FY01																						1	0	1	0	2	4
FY02																						0	1	0	1	4	6
FY03																										5	5
TC																											
Total In																											23
	PY		C'	Y			В	Y1			В	72			BY	2+1			BY	2+2			BY2	2+3 etc.		TC	Total
	FY1996		FY 19	997			FY1	998			FY1	999			FY2	2000			FY	2001			FY20	002+etc			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Out																											
FY96 & Pr																											
FY97																											
FY98														0	0	1	1									0	2
FY99																		0	1	1	1	1	0	0	0	0	4
FY00																						0	1	0	1	0	2
FY01																						0	1	0	1	2	4
FY02																						0	0	1	0	5	6
FY03																										5	5
TC																											

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	BUDGET	ITEM JUSTIFICATION	SHEET				DATE:	
		EXHIBIT P-40					FEBRUA	ARY 1997
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLA	ATURE/SUBHEAD		
OTHER PROCUREMENT, NAVY/BA-4:					SSN COMBAT CONTR	OL SYSTEM/		
ORDNANCE SUPPORT EQUIPMENT					84VB/54200			
	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COST (In Millions)	\$12.5	\$14.4	\$20.5	\$25.6	\$40.1	\$47.9	\$54.5	\$61.0

#### FCS MK 117/CCS MK 1 IMPROVEMENTS (VB011)

Engineering Changes/Auxiliary Equipment (VB011) - Provides for the procurement of Engineering Changes (EC) and Ordnance Alterations (ORDALT) to correct fleet reported problems; Reliability, Maintainability, and Availability (RM&A) deficiencies, and Safety issues associated with in-service SSN/SSBN Combat Control System components and Fire Control System components and interface Equipments, interfacing systems and peripheral or special equipment. Examples include: corrections to Weapons Control Console power supplies; keyboard printer replacements; Vertical Launch System suite improvements to satisfy Environmental Stress Screening (ESS) deficiencies; and correction of RM&A deficiencies of the Mk 92 Attack Control Console.

### CCS OBSOLETE EQUIPMENT REPLACEMENT (OER) PROGRAM (VB034)

The SSN Combat System OER Program (VB034) - Mandated by OPNAV to achieve maximum commonality onboard SSN 688 Class, SSN 751 Flight and SSBN 726 Class submarines. The CCS OER program is commonly referred to as the Combat Control System (CCS) Mk 2 Program D0.

In FY 97 and beyond the OER program will consist of CCS Mk2 Block 1C upgrade kits which will maximize the use of commercial electronics and NDI standard products, reducing procurement and life cycle costs while providing an open architecture for future growth. Combat control display processors will be replaced with Navy standard commercial technology. TAC-X computers will be procured and integrated with the Combat Control System via fiber optic local area network; commercial electronics will also be procured and packaged to replace the Data Transfer System (DTS), AN/UGC-136 keyboard printer and the Tactical Weapons Simulator (TWS).

Additionally, the OER program will procure (20) Tomahawk Land Attack Missile - Nuclear (TLAM-N) Portable Launching Systems (PLSs) and develop and produce the necessary Engineering Change Instructions (ECIs) and Ship Alteration (SHIPALT) kits for PLS compatible SSN 688 and SSN 688I hulls. The TLAM-N PLS is a portable on-demand system that will provide SSN 688/688I and NSSN Class submarines the capability of supporting TLAM-N regeneration and launch with minimum impact to the submarine and crew.

P-1 SHOPPING LIST
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CLASSIFICATION:

EXHIBIT P-40

DD FORM 2454, JUN 86

UNCLASSIFIED

	BUDGET	ITEM JUSTIFICATION	N SHEET				DATE:		
		EXHIBIT P-40					FEBRU	ARY 1997	
A DOD ODDA A STONE OF A CONTINUE					D 4 TENNE NOVEMBER 1	MAINE (GAINAND A D			_
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLA	TURE/SUBHEAD			
OTHER PROCUREMENT, NAVY/BA-4:					SSN COMBAT CONTR	OL SYSTEM/			
ORDNANCE SUPPORT EQUIPMENT					84VB/54200				
	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03	
QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
COST (In Millions)	\$12.5	\$14.4	\$20.5	\$25.6	\$40.1	\$47.9	\$54.5	\$61.0	

#### PRODUCTION SUPPORT (VB033)

This account (VB033) procures technical data, maintenance data, mock-ups, demonstrations and testing products directly for the SSN Combat System Obsolete Equipment Replacement (OER) program. Also procured are services required to support production engineering, quality assurance, product improvement and acceptance testing for production line items. Technical on-site support at shipyards and depots for hardware related problems is also included.

### LOGISTIC SUPPORT REQUIREMENTS (VB900)

This account (VB900) procures engineering and technical support at the organic depot (NUWC Division, Keyport) for equipment maintenance and overhauls. Also procured are engineering services which perform essential documentation updates related to major hardware revisions. VB900 also procures laboratory hardware requirements including Generalized Simulation/Stimulation (GSS) hardware and auxiliary testing and operating equipment.

#### INITIAL TRAINING (VB995)

This account funds the initial factory training including both training deliverables and instructional services to familiarize the initial cadre of instructional personnel with an end item. Also included is the cost of preparation of training packages through the Ready-for-Training (RFT) date.

### CONSULTING SERVICES (VB983)

This account provides assistance for asset management, cost analyses, ORDALT planning, preparation of contract specifications, monitoring of contract deliverables, prime contractor cost, schedule and performance monitoring, ILS planning and GFI coordination.

### EQUIPMENT INSTALLATION (VB5NS)

Funds are administered by SEA 914 for the installation of Combat Control System equipments included in the Fleet Modernization Program. The budget reflects the transfer of design services into the appropriate equipment P-1 line item in accordance with full funding policy FY 98 and out.

### OTHER INFORMATION

Developmental efforts are funded by Program Element 64562N within the SSN Combat Control System Improvement Program S0236. CCS Mk 2 is a functionally equivalent software program (Program D0) that rehosted and repackaged the CCS Mk1 program into a program capable of cost effective updating and software maintenance for SSN 688 and TRIDENT CLASS submarines. CNO direction to install a functionally equivalent Combat System was given per CNO letter 5000 Ser 02/7U384408 dtd 09 July 1987. On 28 May 1996, the CCS MK2 Block 1C program received Milestone II approval and is initiating development effort with Raytheon Electronic Systems . The total procurement objective for the SSN COMBAT CONTROL SYSTEM budget is to outfit 45 SSN submarines, 2 Maintenance Trainers, and 4 Team Trainers with CCS Mk2 Block 1C.

P-1 SHOP	PING LIST
ITEM NO.	PAGE NO.
161	2

CLASSIFICATION:

EXHIBIT P-40

DD FORM 2454, JUN 86

UNCLASSIFIED

		DATE: FEBRUARY 1997									
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMEN ORDNANCE SUPPORT	*	P-1 ITEM NOMENCI SSN COMB 84VB/54200	AT CONTR	ROL SYSTE	vI/						
In Fiscal Year FY 1995 and price	or, 14 CCS MK2	systems have be	een procured fo	r SSN 688 Clas	s submarines.						
	Prior <u>Years</u>	<u>FY 1996</u>	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To <u>Complete</u>	Total <u>Program</u>
CCS MK2 BLOCK 1C	0 / \$0	0 / \$0	2 / \$2.7	7 / \$10.4	6 / \$12.8	9 / \$20.8	9 / \$22.5	9 / \$23.5	9 / \$23.7	0/\$0	51 / \$116.4
TLAM-N PLS	0/\$0	0/\$0	0 / \$0	0 / \$0	3 / \$2.0	10 / \$6.8	7 / \$4.8	0 / \$0	0 / \$0	0/\$0	20 / \$13.6

P-1 SHOPPING LIST ITEM NO. PAGE NO. 3 161

CLASSIFICATION: EXHIBIT P-40

### **UNCLASSIFIED** WEAPON SYSTEM COST ANALYSIS DATE: EXHIBIT P-5 FEBRUARY 1997 APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATURE/SUBHEAD OTHER PROCUREMENT, NAVY/BA-4: SSN COMBAT CONTROL SYSTEM ORDNANCE SUPPORT EQUIPMENT 84VB/54200 TOTAL COST IN THOUSANDS OF DOLLARS

COST CODE	ELEMENT OF COST	IDENT CODE		FY96		FY97		FY98		FY99
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
VB011	FCS MK117/CCS MK 1 IMPROVEMENTS	A		\$1,424		\$1,648		\$1,095		\$703
	ECP/AUXILIARY EQUIPMENT			1,424		1,648		1,095		703
VB034	CCS OER PROGRAM MODS	В				2,717		10,396		14,779
	CCS MK2 BLOCK 1C UPGRADE KITS TLAM-N PORTABLE LAUNCHING SYSTEMS (PLS)				2	2,717	7	10,396	6	12,797 1,982
	TEAN IN TOKEMBLE ENGINEERING STOTEMS (LES)								3	1,502
VB033	PRODUCTION SUPPORT			1,603		1,643		1,527		1,573
VB900	CONSULTING SERVICES			926		1,088		1,340		1,380
VB983	LOGISTICS SUPPORT			6,986		4,810		3,939		4,318
VB995	INITIAL TRAINING			1,457		1,409		114		290
	MATERIAL TOTAL			\$12,396		\$13,315		\$18,411		\$23,043
VB5NS	EQUIPMENT INSTALLATION (FMP)			138		1,040		2,100		2,216
VBDSA	INSTALLATION DESIGN SERVICES (FMP)									\$386
	GRAND TOTAL			\$12,534		\$14,355		\$20,511		\$25,645

DD FORM 2446, JUN 86

P-1 SHOPPING LIST ITEM NO. PAGE NO. 161 4

CLASSIFICATION:

EXHIBIT P-5

**UNCLASSIFIED** 

#### BUDGET PROCUREMENT HISTORY AND PLANNING DATE: **EXHIBIT P-5A FEBRUARY 1997** APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATURE/SUBHEAD OTHER PROCUREMENT, NAVY/BA-4: SSN COMBAT CONTROL SYSTEM ORDNANCE SUPPORT EQUIPMENT 84VB/54200 CONTRACT DATE OF SPECS SPEC IF YES COST LINE ITEM/ CONTRACTOR METHOD CONTRACTED AWARD FIRST QUANTITY UNIT AVAILABLE REV WHEN CODE FISCAL YEAR AND LOCATION & TYPE BYDATE DELIVERY COST NOW REO'D AVAILABLE VB034 CCS MK2 OER BLOCK 1C UPGRADES RAYTHEON SS/FP NAVSEA 03/97 03/99 2 \$1,358.5 YES NO (FY97) ELECTRONIC SYSTEMS Portsmouth, RI **BLOCK 1C UPGRADES** RAYTHEON SS/FP NAVSEA 03/98 11/99 7 \$1,485.1 YES NO (FY98) ELECTRONIC SYSTEMS Portsmouth, RI SS/FP NAVSEA 03/99 \$2,132.8 YES NO **BLOCK 1C UPGRADES** RAYTHEON 11/00 6 (FY99) ELECTRONIC SYSTEMS Portsmouth, RI TLAM-N PLS UNKNOWN C/FP NAVSEA 03/99 03/01 3 \$660.6 YES NO (FY 99)

### REMARKS:

D. A CCS MK2 Block 1C upgrade will maximize use of commercial electronics and NDI standard products. TAC-X computers will be procured and integrated with the Combat Control System via fiber optic local area network and commercial electronics will be procured and packaged to replace the Data Transfer System (DTS), AN/UGC-136 keyboard printer and the Tactical Weapons Simulator (TWS).

P-1 SHOPPING LIST

ITEM NO. PAGE NO.

161 5

CLASSIFICATION:

FEBRUARY 1997 DATE:

P3A		INDIVIDUAL MOI	DIFICATIO	N															DATE:	FEBRU.	ARY 1997
SSN COMBAT CONTROL SYSTEM /84VB																					
MODIFICATION TITLE:	SSN COMBAT CONTROL SYS	TEM (84VB)/54200																			
MODELS OF SYSTEM AFFECTED:	CCS MK2 D0																				
DESCRIPTION/JUSTIFICATION:	This program replaces obsolete ed						ombat system	s while max	imizing the	use of con	nmercial el	ectronics a	nd NDI pro	ducts.							
DEVELOPMENT STATUS/MAJOR DEVELOPMENT	T MILESTONES:	TECHEVAL 1/95; 0	OPEVAL 3/	95; MILE	STONE III	05/96												TO	TO		
			FY96															COMP	COMP	TOTAL	TOTAL
		QTY	& PRIOR	QTY	FY97	QTY	FY98	QTY	FY99	QTY	FY00	QTY	FY01	QTY	FY02	QTY	FY03	QTY	COST	QTY	COST
FINANCIAL PLAN (IN MILLIONS)																					
RDT&E																				0	0.000
PROCUREMENT		21	92.500	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	21	92.500
QUANTITY		14	68.100					-										_		14	68.100
INSTALLATION KITS		17	00.100																	0	0.000
INSTALLATION KITS NONRECURRING																				0	0.000
EQUIPMENT																				0	0.000
																				0	
EQUIPMENT NONRECURRING																					0.000
ENGINEERING CHANGE ORDERS																				0	0.000
DATA																				0	0.000
TRAINING EQUIPMENT		7	24.400																	7	24.400
SUPPORT EQUIPMENT																				0	0.000
OTHER																				0	0.000
INTERIM CONTRACTOR SUPPORT																				0	0.000
INSTALLATION OF HARDWARE																					
FY96 EQUIPMENT AND PRIOR		7	17.138					1	NOTE	3	NOTE	3	NOTE							14	17.138
		/	17.138					1	NOTE	3	NOTE	3	NOTE							0	
FY97 EQUIPMENT																					0.000
FY98 EQUIPMENT																				0	0.000
FY99 EQUIPMENT																				0	0.000
FY00 EQUIPMENT																				0	0.000
FY01 EQUIPMENT																				0	0.000
FY02 EQUIPMENT																				0	0.000
TO COMPLETE																				0	0.000
ORDALTS																				0	0.000
TOTAL INSTALLATION COST		7	17.138	0	0.000	0	0.000	1	0.000	3	0.000	3	0.000	0	0.000	0	0.000	0	0.000	14	17.138
TOTAL PROCUREMENT COST			92.500		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		92.500
TOTAL COST			109.638		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		109.638
METHOD OF IMPLEMENTATION:	Shipyard/AIT		ADMINIS'	TRATIVE	LEADTI	ME.	12 MONTH	15			PRODU	CTION LE	EADTIME:		36 MONTI	15					
CONTRACT DATE:	PRIOR YEAR:			RRENT Y		N/A		JDGET YEA	AR 1.	N/A	TRODE		DGET YEA		N/A	1.5					
PRODUCTION DELIVER DATE:	PRIOR YEAR:			RRENT Y		N/A		DGET YEA		N/A			DGET YEA		N/A						
INSTALLATION SCHEDULE:																					
INSTALLATION SCHEDULE: INPUT ======>		FY96/Prio	-	FY97		FY98		FY99		FY00		FY01		FY02		FY03		TC			
INPUT =====>		1,2,3,4		1,2,3,4	-	1,2,3,4	•	1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4				1,2,3,4	_	TOTAL	
EVOC & PRIOR					-		_									1,2,3,4			_		
FY96 & PRIOR		0,0,0,7		0,0,0,0		0,0,0,0		0,1,0,0		0,1,2,0		2,1,0,0		0,0,0,0		0,0,0,0		0,0,0,0		14	
FY97																					
FY98																					
FY99																					
FY00																					
FY01																					
FY02																					
OUTPUT ====>		FY96/Prio	r	FY97	-	FY98		FY99		FY00		FY01		FY02		FY03		TC	_		
		1,2,3,4		1,2,3,4	_	1,2,3,4	_	1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4	_	TOTAL	
FY96 & PRIOR		0,0,0,7		0,0,0,0		0,0,0,0		0,0,1,0		0,1,2,0		2,1,0,0		0,0,0,0		0,0,0,0		0,0,0,0		14	
FY97																					
FY98																					
FY99																					
FY00																					
FY01																					
EV02																					

FY02 This exhibit shows SSN installations only. No trainer installations are shown.

NOTE: 7 CCS MK2 DO ship sets procured to date will be installed in FY99 and beyond with CCS MK 2

Block 1C upgrades. Installation costs are shown on P-3A for CCS MK 2 Block 1C.

P-1 SHOPPING LIST ITEM NO. PAGE NO. CLASSIFICATION: UNCLASSIFIED

INDIVIDUAL MODIFICATION DATE: FEBRUARY 1997 SSN COMBAT CONTROL SYSTEM /84VB MODIFICATION TITLE: SSN COMBAT CONTROL SYSTEM (84VB)/54200 MODELS OF SYSTEM AFFECTED: Upgrade CCS MK2 D0 to CCS MK2 D0 Block 1C DESCRIPTION/JUSTIFICATION: This program replaces obsolete equipment and will achieve optimum commonality among submarine combat systems while maximizing the use of commercial electronics and NDI products. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MILESTONE II 05/96; TECHEVAL 12/98; OPEVAL 10/99; MILESTONE III 05/00 TO TO COMP COMP FY96 TOTAL TOTAL & PRIOR FY97 QTY FY99 QTY FY00 QTY FY01 QTY FY02 QTY FY03 QTY COST QTY COST FINANCIAL PLAN (IN MILLIONS) RDT&E 0.000 PROCUREMENT 0.000 1.094 5.820 1.145 1.171 0 0.000 1.216 0.000 0.000 10.446 QUANTITY 1.145 1 1.171 7.100 0.000 1.216 INSTALLATION KITS 0.000 INSTALLATION KITS NONRECURRING 0.000 EOUIPMENT 0.000 EQUIPMENT NONRECURRING 0.000 ENGINEERING CHANGE ORDERS 0.000 DATA 0.000 TRAINING EQUIPMENT 3.346 3.346 SUPPORT EQUIPMENT 0.000 OTHER 0.000 INTERIM CONTRACTOR SUPPORT 0.000 INSTALLATION OF HARDWARE FY96 EQUIPMENT AND PRIOR 0.000 FY97 EQUIPMENT 0.707 FY98 EQUIPMENT 1.435 1.435 FY99 EQUIPMENT 0.742 FY00 EQUIPMENT 0.752 0.752 1 FY01 EQUIPMENT 0.000 FY02 EQUIPMENT 0.752 0.752 TO COMPLETE 0.000 ORDALTS 1.040 2.100 0.630 0.087 0.021 4.557 TOTAL INSTALLATION COST 0.000 1.040 2.100 1.386 1.435 1.372 0.839 0.021 0.752 8.945 TOTAL PROCUREMENT COST 0.000 1.094 5.820 1.145 1.171 0.000 1.216 0.000 0.000 10.446 TOTAL COST 0.000 2.134 7.920 2.531 2.606 1.372 2.055 0.021 0.752 19.391 METHOD OF IMPLEMENTATION: OPERATIONAL ALTERNATION/TIG PRODUCTION LEADTIME: 24 MONTHS ADMINISTRATIVE LEADTIME: 12 MONTHS CONTRACT DATE: PRIOR YEAR: CURRENT YEAR: 3/97 BUDGET YEAR 1: 3/98 BUDGET YEAR 2: 3/99 PRODUCTION DELIVER DATE: PRIOR YEAR: CURRENT YEAR: BUDGET YEAR 1: 11/99 BUDGET YEAR 2: 11/00 3/99 INSTALLATION SCHEDULE: INPUT =====> FY96/Prior FY97 FY98 FY99 FY00 FY01 FY02 FY03 TC 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 TOTAL FY96 & PRIOR FY97 1,0,0,0 FY98 0,0,1,1 FY99 0,0,1,0 FY00 0,0,0,1 FY01 0,0,0,0 FY02 TO COMPLETE OUTPUT ====> FY97 FY98 FY99 FY01 FY02 FY03 FY96/Prior FY00 1, 2, 3,4 1, 2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 TOTAL FY96 & PRIOR FY97 0,1,0,0 FY98 0,0,1,1 FY99 0,0,0,1 FY00 0,0,0,1 FY01 0.0.0.0 FY02 TO COMPLETE

This exhibit shows SSN installations only. No trainer installations are shown.

\* FY 2000 reflects the installation of 1 CCS Mk2 D0 unit procured and upgraded to CCS Mk2 D0 Blk 1C. Installation cost for that unit is reflected in FY 2000 on this page.

P-1 SHOPPING LIST
ITEM NO. PAGE NO.
161 7

CLASSIFICATION: UNCLASSIFIED

INDIVIDUAL MODIFICATION DATE: FEBRUARY 1997 SSN COMBAT CONTROL SYSTEM /84VB MODIFICATION TITLE: SSN COMBAT CONTROL SYSTEM (84VB)/54200 MODELS OF SYSTEM AFFECTED: Upgrade AN/BSY-1 to CCS MK2 D0 Block 1C DESCRIPTION/JUSTIFICATION: This program replaces obsolete equipment and will achieve optimum commonality among submarine combat systems while maximizing the use of commercial electronics and NDI products. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MILESTONE II 05/96; TECHEVAL 12/98; OPEVAL 10/99; MILESTONE III 05/00 TO TO COMP COMP FY96 TOTAL TOTAL & PRIOR FY97 QTY FY99 QTY FY00 QTY FY01 QTY FY02 QTY FY03 QTY COST QTY COST FINANCIAL PLAN (IN MILLIONS) RDT&E 0 0.000 PROCUREMENT 0.000 1.623 4.576 11.652 11.889 14.592 9.818 0.000 0.000 54.150 4 23 QUANTITY 11.652 9.515 14.592 22 51.776 INSTALLATION KITS 0 0.000 INSTALLATION KITS NONRECURRING 0.000 EOUIPMENT 0.000 EQUIPMENT NONRECURRING 0.000 ENGINEERING CHANGE ORDERS 0.000 0.000 DATA TRAINING EQUIPMENT 2.374 2.374 SUPPORT EQUIPMENT 0.000 OTHER 0.000 INTERIM CONTRACTOR SUPPORT 0.000 INSTALLATION OF HARDWARE FY96 EQUIPMENT AND PRIOR 0.000 FY97 EQUIPMENT 0.830 FY98 EQUIPMENT 2 \* 1.702 1.702 FY99 EQUIPMENT 4.305 FY00 EQUIPMENT 3.516 3 516 4 FY01 EQUIPMENT 5.464 FY02 EQUIPMENT 3.719 3.719 TO COMPLETE 0.000 ORDALTS 0.000 TOTAL INSTALLATION COST 0.000 0.000 0.000 0.830 1.702 4.305 3.516 5.464 3.719 19.536 TOTAL PROCUREMENT COST 0.000 1.623 4.576 11.652 11.889 14.592 9.818 0.000 0.000 54.150 TOTAL COST 0.000 1.623 4.576 12.482 13.591 18.897 13.334 5.464 3.719 73.686 METHOD OF IMPLEMENTATION: OPERATIONAL ALTERNATION/TIG PRODUCTION LEADTIME: 24 MONTHS ADMINISTRATIVE LEADTIME: 12 MONTHS CONTRACT DATE: PRIOR YEAR: CURRENT YEAR: 3/97 BUDGET YEAR 1: 3/98 BUDGET YEAR 2: 3/99 PRODUCTION DELIVER DATE: PRIOR YEAR: CURRENT YEAR: BUDGET YEAR 1: 11/99 BUDGET YEAR 2: 11/00 3/99 INSTALLATION SCHEDULE: INPUT =====> FY96/Prior FY97 FY98 FY99 FY00 FY01 FY02 FY03 TC 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 TOTAL FY96 & PRIOR FY97 0,1,0,0 FY98 0,1,1,0 FY99 2,1,2,0 FY00 2,1,1,0 FY01 3.2.1.0 FY02 TO COMPLETE OUTPUT ====> FY97 FY98 FY99 FY01 FY02 FY03 FY96/Prior FY00 1, 2, 3,4 1, 2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 TOTAL FY96 & PRIOR FY97 0,0,1,0 FY98 0,1,1,0 FY99 1,1,2,0 1,0,0,0 FY00 1,1,1,1 FY01 3210 FY02 TO COMPLETE

This exhibit shows SSN installations only. No trainer installations are shown.

FY's 99(1), 00(3) & FY01(3) reflect the installation of CCS Mk2 D0 units procured and upgraded to CCS Mk2 D0 Blk IC. Installation costs for those units are reflected in their respective years on this page.

P-1 SHOPPING LIST

ITEM NO. PAGE NO.

161 8

CLASSIFICATION: UNCLASSIFIED

INDIVIDUAL MODIFICATION DATE: FEBRUARY 1997 SSN COMBAT CONTROL SYSTEM /84VB MODIFICATION TITLE: SSN COMBAT CONTROL SYSTEM (84VB)/54200 MODELS OF SYSTEM AFFECTED: Upgrade CCS MK1 to CCS MK2 D0 Block 1C DESCRIPTION/JUSTIFICATION: This program replaces obsolete equipment and will achieve optimum commonality among submarine combat systems while maximizing the use of commercial electronics and NDI products. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MILESTONE II 05/96; TECHEVAL 12/98; OPEVAL 10/99; MILESTONE III 05/00 TO TO COMP COMP FY96 TOTAL TOTAL & PRIOR FY97 QTY FY99 QTY FY00 QTY FY01 QTY FY02 QTY FY03 QTY COST QTY COST FINANCIAL PLAN (IN MILLIONS) RDT&E 0 0.000 PROCUREMENT 0.000 0.000 0.000 0.000 7.762 7.906 4 12.455 23.664 0.000 51.787 19 QUANTITY 0.000 0.000 3 7.762 7.906 12.455 49.787 INSTALLATION KITS 0 0.000 INSTALLATION KITS NONRECURRING 0.000 EOUIPMENT 0.000 EQUIPMENT NONRECURRING 0.000 ENGINEERING CHANGE ORDERS 0.000 DATA 0.000 TRAINING EQUIPMENT 2 2.000 2.000 SUPPORT EQUIPMENT 0.000 OTHER 0.000 INTERIM CONTRACTOR SUPPORT 0.000 INSTALLATION OF HARDWARE FY96 EQUIPMENT AND PRIOR 0.000 FY97 EQUIPMENT 0.000 FY98 EQUIPMENT 0.000 FY99 EQUIPMENT 0.000 FY00 EQUIPMENT 3 10.525 10.525 FY01 EQUIPMENT 3 10.747 10.747 FY02 EQUIPMENT 14.828 14.828 FY03 EQUIPMENT 26,495 26.495 TO COMPLETE 0.000 ORDALTS 0.000 TOTAL INSTALLATION COST 0.000 0.000 0.000 0.000 0.000 0.000 10.525 10.747 41.323 62.595 TOTAL PROCUREMENT COST 0.000 0.000 0.000 0.000 7.762 7.906 12.455 23.664 0.000 51.787 22.980 114.382 TOTAL COST 0.000 0.000 0.000 0.000 7.762 7.906 34.411 41.323 METHOD OF IMPLEMENTATION: OPERATIONAL ALTERNATION/TIG ADMINISTRATIVE LEADTIME: 12 MONTHS PRODUCTION LEADTIME: 24 MONTHS CONTRACT DATE: PRIOR YEAR: CURRENT YEAR: 3/97 BUDGET YEAR 1: BUDGET YEAR 2: 3/99 3/98 PRODUCTION DELIVER DATE: PRIOR YEAR: CURRENT YEAR: 3/99 BUDGET YEAR 1: 11/99 BUDGET YEAR 2: 11/00 INSTALLATION SCHEDULE: INPUT =====> FY96/Prior FY97 FY98 FY99 FY00 FY01 FY02 FY03 TC 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 TOTAL 1,2,3,4 1,2,3,4 FY96 & PRIOR FY97 FY98 FY99 0,0,0,1 1,0,0,1 FY00 FY01 1,0,1,1 FY02 FY03 TO COMPLETE OUTPUT ====> FY96/Prior FY97 FY98 FY99 FY00 FY01 FY02 FY03 TC 1, 2, 3,4 1, 2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4 TOTAL FY96 & PRIOR FY97 FY98 FY99 FY00 0,0,0,1 0,0,2,0 FY01 1,0,1,1

This exhibit shows SSN installations only. No trainer installations are shown.

FY02 FY03 TO COMPLETE

P-1 SHOPPING LIST
ITEM NO. PAGE NO.
161 9

CLASSIFICATION: UNCLASSIFIED

INDIVIDUAL MODIFICATION DATE: FEBRUARY 1996

SSN COMBAT CONTROL SYSTEM /84VB MODIFICATION TITLE:

SSN COMBAT CONTROL SYSTEM (84VB)/54200

MODELS OF SYSTEM AFFECTED: TLAM-N PORTABLE LAUNCHING SYSTEM (PLS)

DESCRIPTION/JUSTIFICATION: This program provides a cost-effective, timely approach to meeting TLAM-N regeneration requirements and a common launcher interface across all attack submarines maximizing capabilities

while minimizing operation, training and supportability costs.

while minimizing operation, training and supportability costs.  DEVELOPMENT STATUS/MAJOR DEVELOPMENT MIL	ESTONES:	MILESTONE II 0		EVAL 02/	00; OPEVA	L 05/00; M	ILESTONE II	II 10/00										то	то		
		OTY	FY96 & PRIOR	OTY	FY97	QTY	FY98	QTY	FY99	QTY	FY00	QTY	FY01	QTY	FY02	QTY	FY03	COMP OTY	COMP COST	TOTAL QTY	TOTAL COST
FINANCIAL PLAN (IN MILLIONS)			a mon		117,	Ų.,	1170	Ų.,	, ,	Ų	1100	Ų.,	1101	Ų.i	1102	Ų.i	1103		CODI		0001
<u>RDT&amp;E</u>																				0	0.000
<u>PROCUREMENT</u>		0	0.000	0	0.000	0	0.000	3	1.982	10	6.751	7	4.830	0	0.000	0	0.000	0	0.000	20	13.563
QUANTITY		0		0		0		3	1.982	10	6.751	7	4.830	0		0		0		20	13.563
INSTALLATION KITS																				0	0.000
INSTALLATION KITS NONRECURRING																				0	0.000
EQUIPMENT																				0	0.000
EQUIPMENT NONRECURRING																				0	0.000
ENGINEERING CHANGE ORDERS																				0	0.000
DATA TRAINING EQUIPMENT																				0	0.000
SUPPORT EQUIPMENT																				0	0.000
OTHER																				0	0.000
INTERIM CONTRACTOR SUPPORT																				0	0.000
																					0.000
INSTALLATION OF HARDWARE*																					
FY96 EQUIPMENT AND PRIOR																				0	0.000
FY97 EQUIPMENT																				0	0.000
FY98 EQUIPMENT																				0	0.000
FY99 EQUIPMENT																				0	0.000
FY00 EQUIPMENT																				0	0.000
FY01 EQUIPMENT																				0	0.000
FY02 EQUIPMENT																				0	0.000
TO COMPLETE																				0	0.000
ORDALTS			0.000		0.000		0.000		0.000		0.883		4.737		2.440		1.969	0	0.000	0	10.029
TOTAL INSTALLATION COST		0	0.000	0	0.000	0	0.000	0	0.000	0	0.883	0	4.737	0	2.440	0	1.969	0	0.000	0	10.029
TOTAL PROCUREMENT COST			0.000		0.000		0.000		1.982		6.751		4.830		0.000		0.000		0.000		13.563
TOTAL COST			0.000		0.000		0.000		1.982		7.634		9.567		2.440		1.969		0.000		25.561
METHOD OF IMPLEMENTATION: OPERATIONAL ALT	EDNATION/TIC		ADMINIS	TD ATIV	E LEADTII	ME.	12 MONTHS	2			PPODII	CTION LE	ADTIME		24 MONT	пс					
CONTRACT DATE:	PRIOR YEAR:			RRENT '		VIII.		DGET YE	AD 1.		TRODU		OGET YE		3/99	11.5					
PRODUCTION DELIVER DATE:	PRIOR YEAR:			RRENT				DGET YEA					OGET YE		3/99						
ROBCETION BELIVER BATE.	TRIOR TEAR.		Co	KKLIVI	ILAK.		ВО	DOLI IL	1.			Bei	JOLI IL	110 2.	3/01						
INSTALLATION SCHEDULE:																					
INPUT =====>		FY96/Pr		FY97		FY98	-	FY99		FY00		FY01		FY02		FY03		TC	-		
TWO CA PRIOR		1,2,3,4	_	1,2,3,4	1	1,2,3,4	-	1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4	-	TOTAL	
FY96 & PRIOR FY97																					
FY97 FY98																				0	
FY99																				0	
FY00																				0	
FY01																				0	
FY02																				0	
TO COMPLETE																				0	
OUTPUT ====>		FY96/Pr 1, 2, 3,4		FY97 1, 2,3,4	_	FY98 1,2,3,4	-	FY99 1,2,3,4		FY00 1,2,3,4		FY01 1,2,3,4		FY02 1,2,3,4		FY03 1,2,3,4		TC 1,2,3,4	-	TOTAL	
FY96 & PRIOR		1, 2, 3,	_	1, 2,3,5	_	-,2,5,1		1,2,0,1		1,2,2,7		2,2,5,T		2,2,2,7		1,2,5,7		-,-,-, -	-		
FY97																					
FY98																				0	
FY99																				0	
FY00																				0	
FY01																				0	
FY02																				0	
TO COMPLETE																				0	

\*Install funding not required unless regeneration is ordered.

P-1 SHOPPING LIST ITEM NO. PAGE NO. CLASSIFICATION: UNCLASSIFIED

01,0212001111								
	BUDGET ITH	EM JUSTIFICATIO	N SHEET			DATE:		
		EXHIBIT P-40				FEBRUARY 1997		
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLAT	URE/SUBHEAD		
OTHER PROCUREMENT, N	IAVY/BA-4:				SUBMARINE	ASW SUPPORT	<b>EQUIPMENT/</b>	
ORDNANCE SUPPORT EQU	JIPMENT				54310/84	6A		
	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A		N/A
COST (In Millions)	\$6.3	\$9.8	\$3.4	\$3.8	\$3.7	\$4.0	\$9.1	\$5.2

This line item procures modifications and improvements to Attack and Ballistic Missile Submarine fire control equipment, interface systems, torpedo tube system components and torpedo tube test equipment. These requirements arise as a result of the introduction of new or modified weapons and sensors and their subsequent evaluation test and operational use. Also procured are reliability, maintainability, functional and safety modifications and tactical improvements resulting from operational use experience.

This line funds modifications and improvements in the following categories:

- 6A001 The Sub FCS ORDALTs category provides design modifications to in-service SSBNs and to provide reliability and maintainability improvements to Fire Control Interface Equipments, interfacing systems, and to peripheral or special equipment, including Bearing and Range Indicators MK 116, Plotters MK 19, and Target Bearing Transmitters MK 17, of MK 117 FCS/CCS MK 1 and BSY-1 FCS installed in SSNs and SSBNs.
- 6A002 The Submarine Torpedo Tube Support category funds in-service support and alteration procurements for all submarine torpedo tubes ejection pumps, handling systems, and countermeasure launchers. Recurring efforts are CASREP support to fleet units, emergency ORDALTS, Bore Gage/Test Equipment Procurement, Engineering Change Proposal support and prototype ORDALTS. ORDALTS kits are procured to correct significant deficiencies in equipment affecting personnel safety, ship safety and system performance.
- 6A830 This is production engineering services in support of design modifications to in-service SSBNs and in relation to reliability of improvement to Fire Control Interface Equipments and interfacing systems.
- 6A5IN Installing agents will be various Naval Shipyards. All installations will be on SSN 688 Class Submarines.

The total objective for TEP Quieting ORDALTs is 37 units, total cost of \$38.0 million. Seventeen units were procured with FY96 and prior funds, and four units with FY97 funds, and two units procured in Budget year, remaining 14 units to be procured in subsequent years.

P-1 SHOPPING LIST
ITEM NO. PAGE NO.
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CLASSIFICATION:

EXHIBIT P40

UNCLASSIFIED

DD Form 2454, JUN 86

# WEAPON SYSTEM COST ANALYSIS EXHIBIT P-5

DATE:

FEB 1997

APPROPRIATION/BUDGET ACTIVITY

OTHER PROCUREMENT, NAVY/BA-4: ORDNANCE SUPPORT EQUIPMENT P-1 ITEM NOMENCLATURE/SUBHEAD

# SUBMARINE ASW SUPPORT EQUIPMENT 54310/846A

	ELEMENT OF COST SUBMARINE (N-87)	IDENT CODE	QTY	FY96 TOTAL COST	QTY	FY97 TOTAL COST	ОТУ	FY98		FY99
CODE S			QTY		QTY		OTV	<u> </u>		F 1 99
<u>s</u>	SUBMARINE (N-87)	CODE	QTY	TOTAL COST	QTY	TOTAL COST	OTV			
	SUBMARINE (N-87)						QII	TOTAL COST	QTY	TOTAL COST
	SUB F/C ORDALTS			\$1,100		\$1,191		\$0		
	SSN & SSBN ORDALTS			1,100		1,191		0		
6A002 S	SUB TORPEDO TUBE SUPPORT			2,913		6,085		1,996		2,2
	O/A PROTOTYPE/ECP MATERIAL			292		411		270		2
	2J COG MATERIAL			227		435		219		3
Т	TEST EQUIPMENT									
	BORE GAGE			240		321		177		2
,	TEST FACILITY EQUIPMENT			291		461		267		
	MISC. TEST EQUIPMENT			318		453		273		
Т	TEP ORDALTS/TRIDS									
	O/A 16264 TEP QUIET 1		4	1,545	4	1,605	2	790	2	
7	TPES FIRING VALVE				8	803				
S	SSN 688 MINE CAPABILITY									
	FIRE CONTROL PANEL (PORTABLE)				8	1,596				
6A830 P	PRODUCTION ENGINEERING			116		135		0		
SA5IN II	INSTALLATION OF EQUIPMENT (FMP)			2,176		2,385		1,446		1,

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ITEM NO. PAGE NO.

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UNCLASSIFIED

DD Form 2446-1, JUL 87

# UNCLASSIFIED

		FEB 1997												
OTHER P	VBUDGET ACTIVITY ROCUREMENT, NAVY/ CE SUPPORT EQUIPME		(\$000)						JPPORT EQUIPMENT/					
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE			
<u>SUBMARINI</u>	 ES 													
<u>6A002</u>	SUB TORPEDO TUBE O/A 16264 TEP Quiet 1													
	<u>FY96</u>	NUWC, Newport, RI	PX	NAVSEA	12/95	06/96	4	\$386.2	YES	NO				
	<u>FY97</u>	NUWC, Newport, RI	PX	NAVSEA	12/96	06/97	4	\$401.2	YES	NO				
	<u>FY98</u>	NUWC, Newport, RI	PX	NAVSEA	12/97	06/98	2	\$395.0	YES	NO				
	<u>FY99</u>	NUWC, Newport, RI	PX	NAVSEA	12/98	06/99	2	\$400.0	YES	NO				
<u>6A002</u>	TPES FIRING VALVE													
	<u>FY97</u>	NUWC, Newport, RI	PX	NAVSEA	04/97	08/97	8	\$100.4	YES	NO				
<u>6A002</u>	FIRE CONTROL PANEL													
	<u>FY97</u>	NUWC, Newport, RI	PX	NAVSEA	12/96	10/97	8	\$199.5	YES	NO				
REMARKS:	l	1		1		I	I							

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CLASSIFICATION: EXHIBIT P-5A

CLASSIFICATION: UNCLASSIFIED		
P3A	INDIVIDUAL MODIFICATION	1-Feb-97
SUBMARINE ASW SUPPORT EQUIPMENT/	/846A	
MODIFICATION TITLE: SUB TORPEDO TU	JBE ORDALT 16264	
MODELS OF SYSTEM AFFECTED:	SUBMARINE ASW SUPPORT EQUIPMENT	
DESCRIPTION/JUSTIFICATION:		
DEVELOPMENT STATUS/MAJOR DEVELO	PMENT MILESTONES:	TO TO

MODELS OF SYSTEM AFFECTED:	SUBMARINE ASW SUPI	PORT EQU	IPMENT																		
DESCRIPTION/JUSTIFICATION:																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MI	LESTONES:		FY96 &															TO COMP	TO COMP	TOTAL	TOTAL
FINANCIAL PLAN (IN MILLIONS)		QTY	PRIOR	QTY	FY97	QTY	FY98	QTY	FY99	QTY	FY00	QTY	FY01	QTY	FY02	QTY	FY03	QTY	COST	QTY	COST
<u>RDT&amp;E</u>																				37	14.550
<u>PROCUREMENT</u>		17	6.045	4	1.605	2	0.790	2	0.800	2	0.820	2	0.840	2	0.900	2	0.910	4	1.840	37	14.550
QUANTITY (FY96 quantity includes 1 trainer)		17	6.045	4	1.605	2	0.790	2	0.800	2	0.820	2	0.840	2	0.900	2	0.910	4	1.840	37	14.550
INSTALLATION KITS																				0	0.000
INSTALLATION KITS NONRECURRING																				0	0.000
EQUIPMENT																				0	0.000
EQUIPMENT NONRECURRING																				0	0.000
ENGINEERING CHANGE ORDERS																				0	0.000
DATA TRANSPORTED TO VIEW TO VI																				0	0.000
TRAINING EQUIPMENT SUPPORT EQUIPMENT																				0	
OTHER																				0	0.000
INTERIM CONTRACTOR SUPPORT																				0	0.000
INTERIM CONTRACTOR SUFFORT																				U	0.000
INSTALLATION OF HARDWARE																					
FY96 EQUIPMENT AND PRIOR		16	9.176																	16	9.176
FY97 EQUIPMENT			,	4	2.385															4	2.385
FY98 EQUIPMENT					2.505	2.	1.446													2	1.446
FY99 EQUIPMENT						-	1.110	2	1.549											2	1.549
FY00 EQUIPMENT								_	1.5.17	2.	1.485									2	1.485
FY01 EQUIPMENT										-	1.100	2	1.471							2	1.471
FY02 EQUIPMENT														2	1.501					2	1.501
FY03 EQUIPMENT																2	1.531			2	1.531
TO COMPLETE																		4	2.800	4	2.800
	*Trainer has no install cost	ts																			
TOTAL INSTALLATION COST			9.176		2.385		1.446		1.549		1.485		1.471		1.501		1.531		2.800	36	23.344
TOTAL PROCUREMENT COST			6.045		1.605		0.790		0.800		0.820		0.840		0.900		0.910		1.840		14.550
TOTAL COST			15.221		3.990		2.236		2.349		2.305		2.311		2.401		2.441		4.640		37.894
TOTAL COST			13.221		3.990		2.230		2.349		2.303		2.311		2.401		2.441		4.040		37.094
METHOD OF IMPLEMENTATION:					ADMINIST	RATIVE	LEADTIM	E:	6 MONTHS				PRODUC	TION L	EADTIME:		6 MONT	HS			
CONTRACT DATE:	PRIOR YEA	R·	12/95			RENT Y		12/96		DGET YE.	AR 1.	12/97	THODOG		DGET YEA		12/98	110			
PRODUCTION DELIVER DATE:	PRIOR YEA		06/96			RENT Y		06/97		DGET YE.		06/98			DGET YEA		06/99				
TROBUCTION BELLVER BITTE.	THICK TELL		00/70					00/7/	20	DOLI IL		00/70		50.	DOLI IL	2.	00/77				
INSTALLATION SCHEDULE:																					
INPUT =====>	FY96 & PRIOR		FY97		FY98		FY99		FY00		FY01		FY02		FY03		TC				
	1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4	_	1,2,3,4		1,2,3,4		1,2,3,4		1,2,3,4	_	1,2,3,4		TOTAL		
FY96 & PRIOR	5,1,5, 5																		16		
FY97			0,0,2,2																4		
FY98					0,0,1,1														2		
FY99							0,0,1,1												2		
FY00									0,0,0,2										2		
FY01											0,0,0,2								2		
FY02													0,0,1,1						2		
FY03															0,0,0,2				2		
TO COMPLETE																	0,0,2,2		4		
OUTPUT =====>	FY96 & PRIOR		FY97		FY98	_	FY99	_	FY00	_	FY01	_	FY02	_	FY03	_	TC	_	TOTAL		
EVOC A PRIOR	1,2,3,4 5,1,5, 5		1,2,3,4		1,2,3,4	_	1,2,3,4	_	1,2,3,4	_	1,2,3,4	_	1,2,3,4	_	1,2,3,4	_	1,2,3,4	_	TOTAL	-	
FY96 & PRIOR	5,1,5, 5		0022																16		
FY97			0,0,2,2		0.0.1.1														4		
FY98					0,0,1,1		0.011												2		
FY99							0,0,1,1		0.002										2		
FY00									0,0,0,2		0002								2		
FY01											0,0,0,2		0011						2		
FY02 FY03													0,0,1,1		0.002				2 2		
TO COMPLETE															0,0,0,2		0,0,2,2				
TO COMPLETE							1	D 4 0770	DDING LIST								0,0,2,2		4	EVUIDIT D	

P-1 SHOPE	PING LIST
ITEM NO.	PAGE NO.
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### **CLASSIFICATION**

	DATE: February 1997												
APPROPRIATION/B	APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATUR												
OTHER PROCUE	•		SURFACE ASW SUPPORT EQUIPMENT, (544900) 846B										
	1996	1997	1998	1999	2000	2001	2002	2003					
QUANTITY													
COST (In Millions)	\$6.9	\$7.1	\$5.9	\$6.1	\$4.6	\$4.7	\$4.4	\$4.5					

This line item provides funding to procure Reliability, Maintainability and Availability (RM&A) and Safety modifications through the Ordnance Alteration (ORDALT) process to in-service ASW Fire Control, Surface Vessel Torpedo Tubes and related support and test equipment. These requirements arise as a result of evaluation, testing and Fleet use of existing, new or modified ASW weapons and/or related systems and subsystems. Included in this line item are all related procurements for training and simulation equipment required for the life cycle support efforts of this equipment. ORDALT quantities are highly variable. This budget reflects the transfer of design services into the appropriate equipment P-1 line item in accordance with full funding policies in FY98 and out.

Cost Code 6B001 provides funding for Ordnance Alteration (ORDALT) kits for the ASW Underwater Fire Control System (UFCS) MK 116 Mods 2 and 4 and the Control Panel MK 309 Mods 0 and 2. UFCS MK 116 Surface Switchboard MK 34 is also included. Funding for FY 96 - FY 97 includes modifications for DDG 993 Class 2B program and CG 52 to 55 4A programs in support of the UFCS MK 116 Mods 2 and 4. The following RM&A and safety ORDALTs are required because of equipment age and include ORDALTs 30370, 16468, 16405, 30394, 16306, 16307, 16308, 16311, 16591, 30394, 30447. Other ORDALTs will be required and are highly variable contingent on shipboard configurations. All installations are completed via AIT and are variable contingent on pier side availabilities. All shipboard installations are completed via AIT and are variable ilities. Outyear ORDALT procurements are variable, based on shipboard configurations.

(1) Installing Agent: All ORDALTs are installed via AIT.

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- (2) Installations will be accomplished over the remaining fiscal years, during TYCOM scheduled pier side availabilities.
- (3) End items are variable, dependent on shipboard configuration and equipment affected. Shoresites include: NSWC Dahlgren, NUWC Keyport and Fleet ASW School.

P-1 SHOPPING LIST

ITEM NO. 163 PAGE NO. 1

P-40 Budget Item Justification Sheet

UNCLASSIFIED

CLASSIFICATION

#### CLASSIFICATION

BUDGET ITEM JUSTIFICATION	N SHEET	DATE:
P-40		February 1997
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATU	RE
OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT	SURFACE ASW SUPPORT EQU	JIPMENT, (544900) 846B

Cost Code 6B002 provides Weapon Control Support Equipment for the Underwater Fire Control System MK 116 shore site laboratory at NSWC, Dahlgren and the Control Panel MK 309 shore site laboratory at NUWC, Keyport. Procurements will ensure laboratories are at Fleet baseline configurations.

Cost Code 6B004 provides funding for Surface Vessel Torpedo Tubes (SVTT) MK 32 and ancillary equipment. ORDALT procurements include: SVTT: 15713, 16412, 16375, 16460, 16493, 16564, 16594; Torpedo Loading Tray: 15714, 16413; Air Charging Panel (TBD); Interface Junction Box (TBD); and Torpedo Test Shape (TTS) TBD. ORDALT procurements are highly variable, dependent on shipboard configurations and equipment age. Installations are highly variable, via AIT, based on pier side availabilities and ship homeports.

- (1) Installation agent: All ORDALTs are installed via AIT.
- (2) Installations will be accomplished over the remaining fiscal years, during TYCOM scheduled pier side availabilities.
- (3) End items are variable, dependant on shipboard configuration and equipment affected.

  Shoresites include NUWC, Newport; NSWC, Louisville; and Fleet/Service School Commands.

Cost Code 6B005 provides Shipboard Training equipment not otherwise procured as part of an ASW system. Procurements include various quantities of training support equipment, along with various interfacing equipments to the UFCS MK 116 computer operating system. Funding efforts include follow on procurements for shipboard training efforts, such as the T5/T6 requirement onboard CG 52-55 and CBT fabrication for shipboard use.

- (1) Installing Agent: SHIPALT 305K(DDG 993 CI) AIT; SHIPALT 471K (CG 52-CG 55) Shipyards
- (2) When Installation is to be made: SHIPALT 305K 3rd and 4th QTR FY 95 (complete); SHIPALT 471K FY 97 (3), FY 98 (1)
- (3) List of end items or facilities: SHIPALT 305K DDG 993, 994, 995, 996; SHIPALT 471K CG 52, 53, 54, 55 Shoresites: NSWC Dahlgren (QTY 2), Fleet ASW School (QTY 1).

Cost Code 6B007 provides funds for equipment that requires modification as a result of Torpedo MK 46 SLEP/MK 50 Fleet introduction. Procurements include changes to the Torpedo Presetter Test Set MK 432 Mod 4, for MK 46/MK 50 identification changes. Outyear procurements will be a result of digital Torpedo MK 50 changes that require ASW Fire Control or SVTT modifications.

P-1 SHOPPING LIST

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ITEM NO. 163 PAGE NO. 2



**CLASSIFICATION** 

BUDGET ITEM JUSTIFICATION	SHEET	DATE:
P-40		February 1997
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATUR	RE
OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT	SURFACE ASW SUPPORT EQU	IPMENT, (544900) 846B

Cost Code 6B011 is used to procure Surface Vessel Torpedo Tubes (SVTT) shore site laboratory equipment for Launcher System Facilities (LSF). LSF's are used to simulate shipboard conditions for the over the side torpedo launchers in the trouble shooting of Fleet reported problems, as well as for the development of the required ORDALTs.

Cost Code 6B830 provides the necessary engineering support funds to cover the associated ILS elements, ECP reviews and engineering audits for ASW Fire Control and SVTT ORDALT production.

Cost Code 6B860 provides in-house Navy acceptance test and evaluation funding required for the safety and quality assurance testing of all ASW Fire Control and SVTT ORDALTs.

Cost Code 6B900 provides the necessary funding for NAVSEA Headquarters (HQ) consulting services required to ensure all production efforts use NDI and COTS in conjunction with operation and safety requirements to include all ORDALT production, test and installation scheduling.

Cost Code 6B5IN funding is for the installation of all equipment (ORDALTs and SHIPALTs) under the Fleet Modernization Program (FMP).

ORDALT AIT pierside installations are variable and contingent on fleet scheduling.

P-1 SHOPPING LIST ITEM NO. 163 PAGE NO. 3 P-40 Budget Item Justification Sheet



CLASSIFICATION

	WEAPON SYSTEM COST ANALYSIS E	хнівт	(P5)						DATE:	February 1997
OTHE	OPRIATION/BUDGET ACTIVITY R PROCUREMENT, NAVY ORDNANCE SUPPORT EQUIPM	P-1 ITEM NOMENCLATURE/SUBHEAD  SURFACE ASW SUPPORT EQUIPMENT, (544900) 846B								
								ANDS OF DOI	LLARS	
COST	COST CODE ELEMENT OF COST	IDENT CODE		FY 1996		FY 1997		FY 1998		FY 1999
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
6B001	FIRE CONTROL ORDALTS UFCS MK 116 ORDALTS SURFACE SWITCHBOARD ORDALTS CP MK 309 ORDALTS			(421) 205 31 185		(663) 372 - 291		(594) 314 - 280		(981) 586 - 395
6B002	WEAPON CONTROL SUPPORT EQUIF CP MK 309 UFCS MK 116	MENT		(425) 75 350		(425) 75 350		(356) 63 293		(440) 80 360
6B004	TORPEDO TUBE ORDALTS			2,150		1,862		732		1,105
6B005	FCS SHIPBOARD TRAINING EQUIPME	ENT		200		300		167		223
6B007	TUBE/FC MK 50 INTEGRATION			320		320		251		334
6B011	SVTT MK 32 LAB SUPPORT EQUIPME	NT		75		227		167		195
6B830	PRODUCTION ENGINEERING SUPPO	RT		519		479		262		282
6B860	FCS ACCEPTANCE T&E			267		267		84		150
6B900	CONSULTING SERVICES			300		491		210		300
6B5IN	FMP INSTALLATION OF EQUIPMENT			2,234		2,054		3,106		2,125
	TOTAL OSD CONTROL			6,911		7,088		5,929		6,135

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ITEM NO. 163 PAGE NO. 4

Exhibit P-5 Weapons Systems Cost Analysis



### CLASSIFICATION

CLA	SSIFICA		S STUDY - N	OT-INSTAL	LED NONCONSUM	ABLES P-23E	1	DATE	February 1997
APPROPRIATION/BU OTHER PROCURE OPN BA-4 ORDNANCE	MENT NA	VY			P-1 ITEM NOMENCLATURI				
ITEM/PROJECT UNIT		TOTAL IO / REQUIREMENT	QUANTITY ON HAND & NOT IN USE	QUANTITY IN USE	QUANTITY DUE IN WITH FY 96 & PRIOR FUNDS	QUANTITY DUE IN WITH FY 97 PROGRAM FUNDS	PLANNED BUDGET YEARS 98 PROCUREMENT	BALANCE	PHASING RATIONALE
6B001 FIRE CONTR ORDALTS (O/A 1636		14	0	0	14	0	0	0	PLANNED PHASING
6B005 FCS SHIPBO TRNG EQUIPMENT		11	0	0	11	0	0	0	PLANNED PHASING
COST CODE: 6E SHIP CLASS FFG 36 FFG 47 FFG 48 FFG 50-55 FFG 57 FFG 59 FFG 61 NUWC, KEYPORT	B001 QTY 1 1 1 6 1 1 1	6B005 SHIP CLASS DDG 993-996 NSWC, DAHLGREN FLEASWSCH CG 52 - CG 55 TOTAL	QTY 4 2 1 4 11						
FLEASWSCH TOTAL	1 14								

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ITEM NO. 163 PAGE NO. 5

UNCLASSIFIED CLASSIFICATION

### <u>UNCLASSIFIED</u> CLASSIFICATION

#### BUDGET ITEM JUSTIFICATION SHEET February 1997 DoD EXHIBIT P-40 P-1 ITEM NOMENCLATURE APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY/BA 4 - ORDNANCE SUPPORT EQUIPMENT | ASW RANGE SUPPORT EQUIPMENT (846C) FY 99 FY 00 FY 01 FY03 FY 96 | FY 97 | FY 98 FY02 **QUANTITY** COST (IN MILLIONS) 5.1 5.1 2.4 3.6 4.5 4.5 5.0 5.0

This P-1 line provides for the procurement of training range and shore support equipment, proofing range equipment, weapon system/sensor accuracy equipment, and test and trials equipment. Equipment includes instrumentation for Fleet Operational Readiness Accuracy Check Sites (FORACS) and NUWC, KPT proofing ranges, support equipment required to conduct Fleet exercises at Navy ASW Training ranges, Weapon System Accuracy Trials (WSAT) test equipment, Sensor Accuracy Test (SAT) equipment, Ship ASW Readiness/Effectiveness Measuring (SHAREM) and Sonar Acoustic Target Source (SATS) equipment. Training and proofing ranges supported include Southern California Offshore Range (SCORE), Barking Sands Tactical Underwater Range/Barking Sands Underwater Range Extension (BARSTUR/BSURE), AUTEC, AFWTF (St. Croix), Nanoose, Quinault and Dabob Bay. FORACS ranges supported include Andros Island, Southern California, and Hawaii.

### 6C001 - Weapon System/Sensor Accuracy Equipment:

Funding will provide high power ESM targets, Universal Radar Moving Target Transponder, range communication systems, replacement of obsolete range computers, ship auto-tracking system, a missile defense radar target and a more accurate and reliable ship position tracking system. These upgrades are required to provide adequate range equipment for surface ship and submarine weapon systems and sensor accuracy testing.

### 6C002 - Training Range Support Equipment:

Funding provides for the procurement of shipboard tracking equipment, shop special purpose pinger test equipment, and the associated cables/mounting hardware required to track ships and submarines conducting Fleet exercises at the Navy training ranges. NAVSEA provides all of the Navy Underwater Ranges with this tracking equipment support, because the equipment must be compatible with NAVSEA designed and built underwater vehicles (i.e. ships, submarines, torpedoes, mines and sonars).

P-1 SHOP
LIST ITEM
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NO 164 Exhibit P-40 Budget Item Justification Sheet

# **CLASSIFICATION BUDGET ITEM JUSTIFICATION SHEET** DoD EXHIBIT P-40 February 1997 APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATURE ASW RANGE SUPPORT (846C) OTHER PROCUREMENT. NAVY/BA 4 - ORDNANCE SUPPORT EQUIPMENT 6C003 - Test and Trials Support Equipment: Funding will provide upgrade hardware for SATS in order to provide a test and calibration target for the SQQ-89I, SQS-53C, BQQ-5E and BSY-1 sonars. 6C004 - Proofing Range Equipment: Funding provides for replacement and modernization of NUWC, KPT proofing range resources such as: Acoustic Noise Measuring Recording and Analysis System, Above Water Tracking System, RF and Underwater equipment, Sensor Accuracy Test (SAT) equipment, Ship ASW Readiness/Effectiveness Measuring (SHAREM) and Sonar Acoustic Target Source (SATS) equipment. Training and proofing ranges supported include SCORE, BARSTUR/BSURE, AUTEC, AFWTF (St. Croix), Nanoose, Quinault and Dabob Bay.

Production support services will fund support efforts performed by a field activity or contractor during the production phase of these projects.

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#### **CLASSIFICATION** WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5) February 1997 APPROPRIATION/BUDGET ACTIVITY P-1 ITEM NOMENCLATURE OPN/BA 4 - ORDNANCE SUPPORT EQUIPMENT ASW RANGE SUPPORT EQUIPMENT (846C) TOTAL COST IN THOUSANDS OF DOLLARS COST **ELEMENT OF COST** ID **FY 96** FY 97 FY 98 FY 99 CODE CODE QTY COST QTY COST QTY COST QTY COST 1155 300 699 6C001 Weapon System/Sensor Accuracy Equip. 957 576 6C002 Training Range Support Equipment 580 336 673 373 234 246 6C003 Test & Trial Support Equipment 204 6C004 Proofing Range Equipment 1597 926 904 1331 6C820 Consulting Services 309 125 307 334 335 99 218 6C830 Production Engineering 318 6C840 Quality Assurance 98 66 97 135 6C850 Product Improvement 489 260 400 428 120 116 110 6C860 Acceptance, Test & Evaluation 56 **TOTAL** 5056 2372 3551 4532 **UNCLASSIFIED** PAGE NO P-1 SHOP LIST CLASSIFICATION ITEM NO 164 3

		BUDGE	T ITEM JU	STIFICATION	ON SHEET		DATE:					
		P-40										
							Februa	ry 1997				
<b>APPROPRIATIO</b>	N/BUDGET A	CTIVITY			P-1 ITEM NOMENCLATURE							
					EXPLOSIVE ORDNANCE DISPOSAL EQUIPMENT							
OTHER PROC	CUREMENT	, NAVY		74VN BLI # 5509								
<b>BA-4:ORDNA</b>	NCE SUPP	ORT EQUII	PMENT									
	1996	1997	1998	1999	2000	2001	2002	2003				
QUANTITY												
COST (In Millions)	\$9.5	\$6.1	\$7.5	\$8.7	\$9.2	\$9.7	\$9.9	\$8.5				

### ITEM DESCRIPTION/JUSTIFICATION:

The Navy is responsible for the management and execution of the Joint Service EOD unified procurement system as assigned by DOD Directive 5160.62. All procurement of EOD tools and equipment, both initial outfitting and replenishment, for all military services is made by the Navy. The Navy provides all procurement services. There is an annual average of 300 contracts for this material. Each military service funds its own hardware.

VN001-NEW RSP EQUIPMENT: Initial outfitting of tools/equipment for increased allowances incident to correction of initial outfitting deficiencies and as required by EOD render-safe procedures.

VN005-MATERIAL FOR NAVAL SCHOOL EXPLOSIVE ORDNANCE DISPOSAL (NAVSCOLEOD): Provides ordnance material to NAVSCOLEOD for Joint Service training.

VN034-Initial outfit EOD NR: EOD Naval Reserve Units/Detachments require initial outfitting of equipment on the Allowance List as approved by CNO.

VN041-NEUTRALIZATION CHARGE, MK 98: An explosive charge that will neutralize proud, moored, partially buried or buried mines.

VN057-MK 32/35 ACCESSORY SET: Hardware which allows for mine neutralization mission capabilities for MK 7 and MK 4 MMS.

VN058-MK 4 & MK 7 AMPHIBIOUS TASK FORCE (ATF): Provides initial outfitting of MK 4 & MK 7 MMS detachments to allow for forward deployment in support of very shallow water MCM operations.

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# BUDGET ITEM JUSTIFICATION SHEET P-40 (CONTINUED)

DATE: February 1997

APPROPRIATION/BUDGET ACTIVITY

P-1 ITEM NOMENCLATURE

OP,N/4: ORDNANCE SUPPORT EQUIPMENT

**EXPLOSIVE ORDNANCE DISPOSAL EQUIPMENT (74VN)** 

VN059-EOD MOBILE UNIT ALLOWANCE: Initial outfitting of tool/equipment for increased allowances on the CNO approved allowance list..

VN062-MMS SHIPBOARD: Initial outfitting of hardware and production of animal behaviors which allows the MK 4 and MK 7 MMS to operate on a shipboard platform from the sea.

VN063-ADVANCED RADIOGRAPHIC SYSTEM (ARS): ARS will improve current EOD x-ray capabilities by providing a portable, enhanced real time image and reduce the EOD technicians vulnerability to UXOs and IEDs.

VN064-CLASSIFIED PROJECT I: Procurement of developed classified items.

VN065-MMS VERY SHALLOW WATER MINE COUNTERMEASURES (VSWMCM): This funding supports initial outfitting of hardware and animal behaviors required for the subject systems to operate in a limited hostile environment and enhance system survivability.

VN066-VSW ACCESSORY SET-Procurement of hardware which allows for the neutralization of mines in the VSW region which are subject to tidal surge and elevated currents.

VN830-PRODUCTION ENGINEERING: Review all technical data packages prior to procurement and provide procurement instruction to the procuring activity in support of the EOD unified procurement system. Provides production engineering support for all EOD and MMS production contracts.

VN850-PRODUCT IMPROVEMENT: Engineering services to improve EOD/MMS Systems/Equipment in production to improve maintainability, utilize current technology and decrease cost.

VN860-ACCEPTANCE, TEST & EVALUATION: Test, inspect, accept first articles and, on a 100% basis, the production quantity of EOD tools and equipment being procured. These tools are man-rated, and proper functioning of each item must be verified.

VNTNG-INITIAL TRAINING: Provide training support packages which include curriculum material for Joint Service EOD and Marine Mammal systems equipment.

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		WEAI P-5	PON	SYSTEM CO	ST	ANALYSIS			DATE: Februa	ıry 1997	
	OPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NA BA-4:ORDNANCE SUPPORT	P-1 ITEM NOMENCLATURE/SUBHEAD EXPLOSIVE ORDNANCE DISPOSAL EQUIPMENT 74VN									
					JSANDS OF	DOLLA	RS				
COST	ELEMENT OF COST	IDENT CODE		FY 1996		FY 1997		FY 1998	FY 1999		
			QTY	TOTAL COS	QTY	TOTAL COS	QTY	TOTAL COS	QTY	OTAL CO	
	EXPLOSIVE ORDNANCE DISPOSAL	(N85)									
VN001	NEW RSP EQUIPMENT	Α		370		380		385		39	
VN005	MATERIAL FOR NAVSCOLEOD	Α		130		130		140		14	
VN034	INITIAL OUTFIT EOD NR	Α	1	480	1	497	1	438	1	43	
VN041	NEUTRALIZATION CHG MK 98	Α	577	2,885							
VN057	MK 32/35 ACCESSORY SET	Α			253	1,460	256	1,464	98	56	
VN058	MK 7 AMPHIBIOUS TASK FORCE	Α		922							
VN059	EOD MU ALLOWANCE	Α		2,550		1,018		1,840		1,97	
VN062	MMS SHIPBOARD	Α		657		1,188		988		84	
VN063	ARS	В							111	1,60	
VN064	CLASSIFIED PROJECT	Α						200			
VN065	MMS VSWMCM	Α						550		64	
VN066	VSW ACCESSORY SET	Α						305		41	
	PRODUCTION ENGINEERING	Α		555		580		253		61	
	PRODUCT IMPROVEMENT	Α		535		550		560		58	
	ACCEPTANCE, TEST & EVALUATION			270		270		280		29	
VNTNG	INITIAL TRAINING	Α		131		50		118		16	
	TOTAL RM 2446, JUN 86	<b>5</b>		9,485 PING LIST		6,123		7,521		8,66	

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			BUDGE	F PROCURE P-5A				LAMMII		Februa	ary 1997
		IT, NAVY/BA-4:0	RDNANC	EXPLO	OMENCLATU OSIVE O OSAL EC	SUBHEAD	74VN				
COST	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABL
VN034								(000)			
1996	NAVEODTD	NDIAN HEAD, MD	WR	NAVSEA	03/96	03/97	1	480.0	YES	NO	
1997	NAVEODTD	NDIAN HEAD, MD	WR	NAVSEA	03/97	03/98	1	497.0	YES	NO	
1998	NAVEODTD	NDIAN HEAD, MD	WR	NAVSEA	03/98	03/99	1	438.0	YES	NO	
1999	NAVEODTD	NDIAN HEAD, MD	WR	NAVSEA	03/99	03/00	1	439.0	YES	NO	
VN041											
1996	NSWC IHDIV	NDIAN HEAD, MD	WX	NAVSEA	02/96	02/97	577	5.0	YES	NO	
VN057											
1997	NRAD	SAN DIEGO, CA	WR	NAVSEA	02/97	02/98	253	5.77	YES	NO	
1998	NRAD	SAN DIEGO, CA	WR	NAVSEA	02/98	02/99	253	5.78	YES	NO	
1999	NRAD	SAN DIEGO, CA	WR	NAVSEA	02/99	02/00	98	5.79	YES	NO	
VN063											
1999	NAVEODTD	NDIAN HEAD, MD	WR	NAVSEA	02/99	06/99	111	14.4	YES	NO	
					1	1			1	l	ı

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		BUDGE P-40	T ITEM JU	STIFICATION	ON SHEET		DATE:	
		1 40					FEBRU	ARY 1997
APPROPRIATIO	N/BUDGET A	CTIVITY			P-1 ITEN	INOMENCLA	TURE/SUBHI	EAD
							BLI: 55	518
OTHER PROC	CUREMENT	NAVY/BA	4: ORDNA	NCE SUPP	ORUNMAN	NNED SEAF	BORNE TAP	RGETS/84VR
	1996	1997	1998	1999	2000	2001	2002	2003
QUANTITY	6		8					
COST (In Millions)	\$4.2	\$0.0	\$4.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

The Unmanned Seaborne Targets Program provides surface seaborne targets and target electronic augmentation systems for weapons systems test and evaluation and Fleet surface to surface and air to surface training. Target requirements include the 17m QST-35A and the High Speed Mobile Sea Target (HSMST) Mk1, the MK-42 Mod 0 Floating At Sea Target (FAST) and the Towed Trimaran, William Sled, and Improved Surface Towed Target (ISTT). Inventory objective changes based on Fleet usage.

VR001 - The QST-35 SEPTAR, the primary powered surface target for weapons test and evaluation and Fleet training, simulates various surface threats.

VR005, VR006 - The Fleet requires a High Speed Mobile Sea Targets (HSMST) MK1 and a higher speed HSMST MK2 for bombing and gunnery training.

VR002, VR003, VR005, VR008 - The Fleet also requires low cost expendable moving targets and stationary targets towed to the operating site for surface, aerial gunnery and missile shots. Trimarans, HARM/IR target, Williams Sleds, and the ISTT with tow lines and retrieval systems meet these requirements. The FAST is a free floating radar reflective target developed as an open ocean training device for bombing and surface gunnery exercises. This program also procures seaborne target augmentation systems which include transponders (i.e. transmitters/receivers), radar reflectors, RF emitters and ground support equipment (GSE). Various electronic components provide the interface for the target control systems with the control stations/facilities for drone operations. RF emitters and radar reflectors enhance target threat replication and provide the required stimulus for anti-surface/radar weapons systems.

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	WEA	DO!	I SVSTEM CO	ST V	NALYSIS EXI	וופוו	<b>-</b>	DATE	:
	P-5	PON	N STSTEW CO	31 <i>P</i>	INAL I SIS EAF	ПОП	l	FEB	RUARY 1997
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY			P-1 ITEM NOM	ENCI	_ATURE/SUBHI	EAD			
BA4: ORDNANCE SUPPORT EC		т	IINMANNET	SF	ABORNE TA	RGF	TS/84VR		
	• -		NDS OF DOLL		ABORNE IA	I C L	-10/04410		
COST ELEMENT OF COST	IDENT		FY 1996		FY 1997		FY 1998		FY 1999
ODE	CODE								
		QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	PTY	TOTAL COST
2004 007 05									•
R001 QST-35 R003 TOWED TARGETS	A		\$0 \$1,840		\$0 \$0		\$0 \$1,200		\$( \$(
R004 INSTRUMENTATION	Ä		\$618		\$0 \$0		\$1,200 \$600		\$(
R005 HSMST MK1	Â	6	\$1,080		\$0 \$0	8	\$1,503		\$(
R008 MK-42 FLOATING AT SEA TARG			\$0		\$0		\$190		\$(
R830 PRODUCTION ENGINEERING	Α ΄		\$334		\$0		\$360		\$(
R970 INTEGRATED LOGISTICS SUPF	PORTA		\$143		\$0		\$242		\$
R900 CONSULTING SERVICES	Α		<u>\$190</u>		<u>\$0</u>		<u>\$176</u>		<u>\$</u> (
TOTAL		6	\$4,205	0	\$0	8	\$4,271	0	\$
1	1			1					

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			WEAPON	SYSTEM COS P-5A		SIS EXHIE	BIT			DATE FEBRU	JARY 19
	ATION/BUDGET ACTIVITY	1104				MENCLATUR	E		SUBHEAD		
	PROCUREMENT, NA PRONANCE SUPPOR				LINMANI	NED SEAF	BORNE TA	RGETS	84VR		
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
VR001	QST-35 SEPTAR FY95	WILLARD MARINE ANAHEIM CA.	FFP	NAVSEA	Sep-95	Feb-97	4	698.3	YES	NO	
VR005	HSMST MK1 FY96 FY98	NORTHPORT TBD	OPT C/FP	NAVSEA NAVSEA	May-96 Oct-97	May-97 Oct-98	6 8	180.0 187.9	YES YES	NO NO	
DEMAG											
REMAR	RKS				1						

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## CLASSIFICATION: UNCLASSIFIED

				MENT, NAV STIFICATION			DATE: FEI	BRUARY 1997
APPROPRIATIO	N/BUDGET A	CTIVITY			P-1 ITEM	NOMENCLAT	URE	
OPN / 4 - OF	RDNANCE S	SUPPORT E	QUIPMENT		ANTI-SHI	P MISSILE DE	COY SYSTEM	IS / 14VV - 5530
	1996	1997	1998	1999	2000	2001	2002	2003
QUANTITY								
COST (In Millions)	\$2.4	\$23.6	\$24.7	\$22.4	\$21.3	\$17.5	\$17.4	\$18.0

JUSTIFICATION: The Anti-Ship Missile Decoy Program covers a family of decoys and the equipment to deploy them. It is an essential element of the Anti-Ship Missile Defense (ASMD) tactics to counter the threat of enemy homing missiles. The program is funded under two subheads, this one covering launching systems and related equipment, and Shipboard Expendable Countermeasures (14VP) covering consumable decoys. Equipment funded under this line includes:

MK 36 SYSTEM EXPANSION KITS/ORDALTS: MK 36 Expansion Kits (ORDALTS 15579/15589) are being procured for each ship currently equipped with a two- or fourlauncher MK 36 system. The additional aft facing launchers increase decoy effectiveness against modern missile threats. The pending introduction of additional decoy types has resulted in an increased requirement for decoy launchers and ready service storage capacity. Accordingly, a program has been initited to expand two- and four-launcher systems by installing two additional launchers and related equipment along with improvements to the fire control subsystem. Concurrently, existing 20 round Ready Service Lockers are replaced with a new 35 round locker. The larger lockers are also being installed as quickly as the equipment becomes available.

NULKA: This line contains various equipment, subsystems, for a system which will provide the capability to defeat the effectiveness of hostile Anti-Ship cruise missiles. Currently Nulka is scheduled to be installed on the following ship classes: DD 963, DDG 51, CG 47, FFG, LSD 41, LHD, LHA, LCC 19, DDG 993 and AOE 6. The installation will be performed at a pier side availability. No ROH required.

- (a) Decoys and launching system equipment. An active off-board Anti-Ship missile decoy system.
- (b) Production Engineering Support.

EQUIPMENT INSTALLATION: Funding is for the installation of equipment, including Fleet Modernization Program Installs, and installation of equipment at shore

Nulka is a joint program with Australia, who have made the decision to proceed with it's outfitting into their combatants. Initial Operational Testing of Nulka was completed in December 1992, with COMOPTEVFOR recommending limited fleet introduction and continued development. Nulka is currently in the final stage of development with a initial production decision for the decoy planned for Feb 1997 after tests to confirm the final design are completed. Production contract award for the decoy will be made in Feb 1997. Nulka will undergo TECHEVAL and OPEVAL in April 1997 with a launch system production decision planned to support a May 1997 contract award. Integration of Nulka with SSDS is planned to be completed in time to be evaluated in FY 98 during FOT&E.

The budget reflects the transfer of Design Services into the appropriate equipment P-1 line item in accordance with full funding policy FY 98 and out. Program Element: 0604755N Project Number: U2190

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		WEAP P-5	ON S	SYSTEM COS	T AN	IALYSIS			DATE: Feb	ruary 1997
APPR	OPRIATION/BUDGET ACTIVITY			P-1 ITEM NON	MENC	LATURE/SUI	BHEA	VD.		
OPN/4	- ORDNANCE SUPPORT EQUIP	MENT		ANTI-SHIP N						
					тот	AL COST IN 1	HOU	SANDS OF DO	OLLARS	3
COST CODE	ELEMENT OF COST	IDENT CODE		FY 1996		FY 1997		FY 1998		FY 1999
			QTY	TOTAL COST	QTY	TOTAL COS	QTY	TOTAL COST	QTY	TOTAL COST
VV001	NULKA SYSTEMS	В			11	5,000	20	6,260	20	6,400
VV001	NULKA DECOYS	В			52	14,920	88	16,984	65	12,805
VV830	Production Engineering					1,565		128		242
VVINS	Installation			2,403		2,121		1,160		2,653
VVDSA	Design Systems Acquisition							164		278
	TOTAL			2,403		23,606		24,696		22,378

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			BUDGET F	ROCUREMEN		RY AND P	LANNING I	EXHIBIT		DATE	IADV 4007
APPROPRIA	ATION/BUDGET ACTIVITY			P-5 <i>A</i>	P-1 ITEM N	MENCLATUR	RE LE DECOY		SUBHEAD	14VV	JARY 1997
OPN / 4	- ORDNANCE SUPPOR	RT EQUIPMENT			LAUN	CHING SY	STEM				
COST	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
VV001	FY 1997 (Systems) FY 1997 (Decoys)	Sippican, MASS BAeA, Australia	C/FP MY/FP	NAVSEA NAVSEA	5/97 2/97	2/98 11/97	11 52	500 189	YES YES	NO NO	N/A N/A
VV001	FY 1998 (Systems) FY 1998 (Decoys)	TBD(competative) BAeA, Australia	C/FP MY/FP	NAVSEA NAVSEA	5/98 2/98	2/99 11/98	20 88	313 193	YES YES	NO NO	N/A N/A
VV001	FY 1999 (Systems) FY 1999 (Decoys)	TBD(competative) BAeA, Australia	C/FP MY/FP	NAVSEA NAVSEA	5/99 2/99	2/00 11/99	20 65	320 197	YES YES	NO NO	N/A N/A
REMAR	ns										

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P3A		IN	DIVIDU	AL MODIF	CATIO	N														
MODIFICATION TITLE: NULKA MODELS OF SYSTEM AFFECTED: DESCRIPTION/JUSTIFICATION:	NONE. ORIGIN.	AL INSTAL	LATION	NS.			KA DE	-COY												
DEVELOPMENT STATUS/MAJOR DEVEL		ONES:	Y 96														TO COMF	TO COMP	TOTAL	TOTA
		QTY &	Prior C	TY FY 97	QTY	FY98	QTY	FY99	QTY	FY00	QTY	FY01	QTY	FY02	QTY	FY03	QTY	COST	QTY	COST
FINANCIAL PLAN (IN MILLIONS)																				
RDT&E		3/58 1	02.5	0 6.1	0	8.2	0	8.2	0	7.0	0	5.6	0	3.6	0	6.5	0	0.0	3/58	45.2
<u>PROCUREMENT</u> QUANTITY				9 4.0	20	6.3	20	6.4	19	6.2	19	6.3	7	2.4	0	0.0	0	0.0	94	127.8 31.6
INSTALLATION KITS				3 4.0	20	0.0	20	0.4	13	0.2	13	0.5	,	2.7	U	0.0	U	0.0	0	0.0
INSTALLATION KITS NONRECURRING																			0	0.0
EQUIPMENT																			0	0.0
EQUIPMENT NONRECURRING ENGINEERING CHANGE ORDERS																			0	0.0
UNIT COST DATA FOR EQUIPMENT				0.5		0.307		0.313		0.32		0.327		0.334		0.342		0.349	0	0.0
TRAINER				1* 0.5*		0.007		0.010		0.02		0.021		0.004		0.042		0.040	1	0.5
SSDS TEST SHIP				1* 0.5*															1	0.5
OTHER (DECOYS)				52 14.9	88	16.9	65	12.8	63	12.7	45	9.2	62	13.0	72	15.5	55	12.1	502	107.1
INTERIM CONTRACTOR SUPPORT																			0	0.0
INSTALLATION OF HARDWARE																				
FY96 EQUIPMENT & PRIOR																			0	0.0
FY97 EQUIPMENT FY98 EQUIPMENT					11*	1.26	18	2.93	2	0.21									11 20	1.3 3.1
FY99 EQUIPMENT							18	2.93	17	1.8	3	0.28							20	2.1
FY00 EQUIPMENT										1.0	15	1.38	4	.032					19	1.7
FY01 EQUIPMENT													16	1.28	3	0.57			19	1.9
FY02 EQUIPMENT															7	1.33			7	1.3
FY03 EQUIPMENT																			0	
TO COMPLETE																			0	
TOTAL INSTALLATION COST						1.26		2.93		2.01		1.66		1.6		1.9			96	11.4
TOTAL PROCUREMENT COST			0.0	19.9		23.2		19.2		18.9		15.5		15.4		15.5		0.0		127.60
TOTAL COST		1	02.5	26.0		31.4		27.4		25.9		21.1		19.0		22.0		0.0		275.3
METHOD OF IMPLEMENTATION:	ORDALT BY AIT					NISTRA						RODUCT	ION L			12 MO				
CONTRACT DATE:		R YEAR N				RENT YE				SET YEA		5/97				AR 2:				
PRODUCTION DELIVER DATE:	PRIO	R YEAR N	А		CURF	RENT YE	=AK:	N/A	RODG	SET YE	AR:	2/98		BUDG	EIYE	AR 2:	2/99			
INSTALLATION SCHEDULE:	E)/00		1/07	E)/00		E)/00		E)/00		E) (04		F) (00		E) (00		то.				
INPUT =====>	FY96		Y97 2, 3, 4	FY98 1, 2, 3,		FY99	4	FY00 1, 2, 3,	4	FY01 1, 2, 3,	4	FY02 1, 2, 3, 4		FY03	4	TC 1, 2, 3, 4	1	TOTAL		
FY 96 & PRIOR		1, 2	2, 3, 4	1, 2, 3,	-	1, 2, 3,	7	1, 2, 3,	*	1, 2, 3,	7	1, 2, 3, 2	•	1, 2, 3,	•	1, 2, 3, 4	•	TOTAL	=	
FY 97				00,02,03	06*													11		
FY 98					02	06,05,04	4,03											18		
FY 99							02,	,05,06,0										19		
FY 00									0:	2,06,06,		F 0F 0F (						18		
FY 01 FY 02											U	5,05,05,0		4,03,00,	00			20 10		
FY 03													U	4,00,00,	00			0		
TC																		0		
Total																		96		
OUTPUT ====>	FY96		Y97	FY98		FY99	-	FY00	_	FY01	-	FY02		FY03	-	TC				
EV OC 8 PRIOR	1, 2, 3,	<u>, 4 1, 2</u>	2, 3, 4	1, 2, 3,	4	1, 2, 3,	4	1, 2, 3,	4	1, 2, 3,	4	1, 2, 3, 4	ŀ	1, 2, 3,	4	1, 2, 3, 4	1	TOTAL	=	
FY 96 & PRIOR FY 97				00,03,03	05													11		
FY 98				00,00,00		05,04,04	4,02											20		
FY 99						, , .		,05,05,0	4,03									20		
FY 00										05,05,0								19		
FY 01											01	,05,05,05						19		
FY 02 FY 03													0	2,00,03,	02			7		
TC																		0		
Total																		96		
*QTY (1) TRAINER PROCUREMENT WITH		INCLUDED	; QTY	(1) SSDS T	EST SH	IP INST	TALL U	INDER I	P-1 523	3900 FM	IP INS	TALL.								
NOTE: INVENTORY OBJECTIVE FOR TH	IIS ITEM IS 96					ITCN4			DAGE							CLASS	SIEIC A	TION: 1	UNCLAS	P-3A
						ITEM			PAGE							CLASS	DIFICA	HON:	DINCLAS	SIFIED

CLASSIFICATION: UNCLASSIFIE	D											
P3A	MK 20 DECOVIA		UAL MODIFIC									
MODIFICATION TITLE: MODELS OF SYSTEM AFFECTE	MK 36 DECOY LA D: MK 36 Mod 1/2/5/6	UNCHING SY	SIEM EXPAN	NSION								
DESCRIPTION/JUSTIFICATION:	Installation provides	improved dec	ov placement o	canability and ad	ditional ready	service storage	e					
DEVELOPMENT STATUS/MAJOR				pansion is being				PALTs.		то то		
		FY 96		3						COMP COMP	TOTAL	TOTAL
		QTY & Prior	QTY FY 97	QTY FY 98 C	TY FY 99 C	QTY FY 00 (	QTY FY 01	QTY FY 02	QTY FY 03	QTY COST	QTY	COST
FINANCIAL PLAN (IN MILLIONS)	_											
RDT&E												
PROCUREMENT		6 1.0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	6	1.0
QUANTITY											0	0.0
INSTALLATION KITS											0	0.0
INSTALLATION KITS NONRECU	JRRING										0	0.0
EQUIPMENT NONDECLIBRING		6 1.0									6	1.0
EQUIPMENT NONRECURRING ENGINEERING CHANGE ORDE	DC										0	0.0
DATA CHANGE ORDE	K5										0	0.0
TRAINING EQUIPMENT											0	0.0
SUPPORT EQUIPMENT											0	0.0
OTHER											0	0.0
INTERIM CONTRACTOR SUPP	ORT										0	0.0
INSTALLATION OF HARDWARE												
FY96 EQUIPMENT & PRIOR		2 3.85	3 2.16	1 0.06	0 0.00	0 0.00	0 0.00	0 0.00	0 0	0 0.0	6	6.07
											0	0.0
FY97 EQUIPMENT											0	0.0
FY98 EQUIPMENT											0	0.0
FY99 EQUIPMENT											0	0.0
FY00 EQUIPMENT FY01 EQUIPMENT											0	0.0
FY01 EQUIPMENT											0	0.0
TO COMPLETE											0	0.0
											U	
TOTAL INSTALLATION COST		3.85	2.16	0.06	0.00	0	0.00	0.00	0.0	0.0		6.07
TOTAL PROCUREMENT COST		1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.0
TOTAL COST		1.0	2.16	0.06	0.00	0.00	0.00	0.00	0.0	0.0		7.07
METHOD OF IMPLEMENTATION	: SHIPALT		A	ADMINISTRATI\	/E LEAD TIME	≣: 6	PRODUCTION	ON LEAD TIN	ИЕ: 6			
CONTRACT DATE:	PRIOR '	YEAR:	(	CURRENT YEAR	R: BI	UDGET YEAR	:	BUDG	ET YEAR 2:			
PRODUCTION DELIVER DATE:	PRIOR '	YEAR:	(	CURRENT YEAR	R: BI	UDGET YEAR	l:	BUDGI	ET YEAR 2:			
INSTALLATION SCHEDULE:												
INPUT ====	===> FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03	TC			
		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		TOTAL	-	
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OUTPUT ==	===> <u>FY 96</u>	FY97	FY98	FY99	FY00	FY01	FY02	FY03	TC			
		1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4			
FY 96 & Pric	or 00,00,01,00	0,002,00,00,0	2 00,00,00,0	1	00,01,00,00					6		
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TC										0		
												P-3A
				ITEM	P.	AGE			CLASS	IFICATION:	UNCLAS	SSIFIED
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### FY 1998/1999 BUDGET PRODUCTION SCHEDLE

P-21

FY 1996/1997 BUDGE	ΤP	RODU	CTION :	SCHEDUI			SHI		SSI	LE D	EC	OY S	SYS	TEN	14V	V - 5	5300	5				Date		EBR	UAR	Y 19	97		
								FISCA	L YEA	R		1997									FISC	AL YEAR			1998				L
	S		ACCEPT	BALANCE					CALE	NDAR \	/EAR				1997							CALEN	DAR Y	EAR			1998		Α
ITEM/MANUFACTURER/	Е	PROC.	PRIOR	DUE	0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	Т
PROCUREMENT YEAR	R	QTY	TO	AS OF	С	0	Е	Α	E	Α	Р	Α	U	U	U	Е	С	0	E	Α	E	Α	Р	Α	U	U	U	Е	E
	V		1-Oct	1-Oct	Т	V	С	N	В	R	R	Υ	N	L	G	Р	Т	V	С	N	В	R	R	Υ	N	L	G	Р	R
MK 53 DECOY LAUNCH SYSTEMS																													
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FY 1998 SYSTEMS		20																						A				_	
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MK 234 NULKA ELECTRONIC DECOY																													$\vdash$
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FY 1997 DECOYS		52							Α									13	13	13		13							
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			<u> </u>	PRODUCTIO	T N R A T F	V	С	N	В	R	R	Υ	N PRO	L	G	P EAD TIN	T //F	V	С	N	В	R REMAR	R KS:	Υ	N	L	G	Р	
MANUFACTURER'S NAME AND LOCA	TION			- NODOCTIO	INAIL			REA	CHED				rico	JOINER	ADMIN		MANU	J-		TOTA	L			rates are	based on	a combin	ned United	i	
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P-1 SHOPPING LIST

A = CONTRACT AWARD

FY 199	6/1997 BUDGET PR	ODI	JCTI	ON SC	CHEC	OUL			MENC SHIP			LE	DE	co	Y S	SYS	TE	MS	/ N	14V	V - 5	55300	)5												DAT		FEBI	RUA	.RY	1997	,
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	FY 2000 SYSTEMS		19																			Α									:	2 2	2 :	2	2 2	2 2	2 2	2 2	<u>.</u>	2	1
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NAVMAT FOR	M 7110/4 (REVISED 11/77)				<u> </u>	1	(PREV	IOUS S	OURCE	)	P.1	SHOP	PING LI	IST		<u> </u>			Ц_		Į	R = PR	OCUP	EMEN	T REC	DUES.	r REI I	FASE					C) /	ASSIE	ICATIO	)N: II	INCL A	SSIFIE	-D		

ITEM NO.PAGE NO.-

A =CONTRACT AWARD

### FY 1998/1999 BUDGET PRODUCTION SCHEDULE

**CLASSIFICATION: UNCLASSIFIED** 

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FY 1996/1997 BUDGE	ГΡ	RODU	CTION	SCHEDUI			NCLATI SHI		SSII	LE I	DEC	OY:	SYS	STEI	14V	/V - 5	5300	5				Date		FEE	BRUA	RY	199	7	
								FISCA				2002									FISC	AL YEAR			2003				Т
	S		ACCEPT	BALANCE		2001			CALE	NDAR	YEAR				2002							CALEN	DAR Y	EAR			2003		
TEM/MANUFACTURER/	Е	PROC.	PRIOR	DUE	0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	1
PROCUREMENT YEAR	R	QTY	то	AS OF	С	0	Е	Α	Е	Α	Р	Α	U	U	U	Е	С	0	Е	Α	Е	Α	Р	Α	U	U	U	Е	
	V		1-Oct	1-Oct	Т	٧	С	N	В	R	R	Υ	N	L	G	Р	Т	V	С	N	В	R	R	Υ	N	L	G	Р	
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MK 53 DECOY LAUNCH SYSTEMS																													Ł
FY 2001 SYSTEMS		19					2	1	2	2	2	2	2	2	2	2													t
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MK 234 NULKA ELECTRONIC DECOY																													Į
EV 2004 DECOVS		45		-		12	11		11		11					-													Ł
FY 2001 DECOYS FY 2002 DECOYS		62			-	12	- 11	-	11 A						-			15	15	15	2	15					-		H
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				PRODUCTION		V	С	N	В	R	R	Υ	N PPO	L	G MENIT I	P EAD TIN	T	V	С	N	В	R REMAR	R Ke	Υ	N	L	G	Р	_
MANUFACTURER'S NAME AND LOCA	TION			PRODUCTION	NAIL			DEV	CHED				FROC	_	ADMIN		MANU	I.		TOTA		1		rotoo or	based on	o oombin	od I Initos		
WIND NO FOREIGN WILL AND EGGA	11014		MINIMUM	1-8-5	MAX	IMUM		D+							AD TIM		FACTU			AFTER					da product				
			RATE	100	IVIDOC	IIII		"						Prior	TO THE	After	TIME			1-Oct					the US Sh				
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BAeA, Melbourne, Australia			100			200				INITI/	AL.					6	1	12		15		1	u	,9	,	2200	,		
Sippican Inc. Marion, MASS										REOF						6		12		15		1							
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P-1 SHOPPING LIST

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	TIM	E PHASED REC				ALLATION DATA)							DATE FE	EBRUARY 19	97
		DGET ACTIVITY		UIPMENT				P-1 ITEM NOME		RE/PROJECT U		STEMS/NULK	A		
1ST QT	R	2ND QTR	1	3RD QTR		4TH QTR		1ST QTR		2ND QTR		3RD QTR		4TH QTR	
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
	•		FY	1996			•		•		•	1997	•		
			FY	1998								1999			
		DD-963 cl LHD cl	2	FFG-7 cl LHD cl	2	LSD-41 cl	3	LSD-41 cl	5	DD-963 cl	5	LHD cl LHA cl	2 2	CG-47 DDG-51 cl LSD-41 cl	2 1 1

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CLASSIFICATION:

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#### CLASSIFICATION:

# **UNCLASSIFIED**

	TIME	E PHASED REC		MENTS SCHEDI PLEMENT SHEE P-23A		ALLATION DATA)							DATE FE	EBRUARY 19	97
		OGET ACTIVITY		UIPMENT				P-1 ITEM NOME		RE/PROJECT U		STEMS / NULK	A		
1ST QTR	?	2ND QTR	?	3RD QTR		4TH QTR		1ST QTR		2ND QTR		3RD QTR		4TH QTR	
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY
	-		FY	2000	-		-		-		FY	2001	-		
LHD cl LHA cl	2 3	FFG-7 cl	5	CG-47 cl DDG-51 cl	3 2	DD-963 cl DDG-51 cl	3 1	FFG-7 cl LSD-41 cl	4 1	CG-47 cl	5	DDG-51 cl	5	CG-47 cl DDG-51 cl	2 1
	l		FY	2002							FY	2003			
CG-47 cl DDG-51 cl	2 3	DDG-51 cl DD-963 cl	2 3	DD-963 cl CG-47 cl	3 2	CG-47 cl DD-963 cl	3 2	CG-47 cl DD-963 cl	3 2			DD-993 cl	3	DDG-51 cl	2

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CLASSIFICATION:

are to be avoided.

		BUDGET ITEM	JUSTIFICATION	SHEET	DATE:					
			P-40		February 1997					
APPROPRIATION/B	UDGET ACTIVITY			P-1 ITEM NOMENCLATURE						
OTHER PROCUREM	EQUIP (84VZ)									
	1996	1997	1998	1999	2000	2001	2002	2003		
QTY										
COST										
\$М	\$ 5.3	\$ 4.0	\$ 1.4	\$ 1.1	\$ 1.0	\$ 1.1	\$ 1.1	\$ 1.1		

This line item provides funding for capital type rehabilitation projects at five (5) government-owned, contractor- operated plants for weapon systems such as the MK 41 Vertical Launching System, MK 45 Gun Mounts, MK 13/26 Launching Systems MK 13/26 Launching Systems, Sonar Bow Domes, and PHALANX. Federal Acquisition Regulation Part 52.245-7 specifies facilities use contracts require government funding of capital type rehabilitation projects to support and maintain these facilities.

These plants have an average age of 45 years and lack of proper maintenance will severely limit capabilities to maintain scheduled production rates and overall productivity. The following estimates are for capital type

ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations. These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties

rehabilitation areas separated to reflect environmental, safety, energy conservation and major repairs.

SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations.

These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.

ENERGY CONSERVATION MANAGEMENT: Provides funds for reducing energy consumption as mandated by Congress in 1993.

MAJOR REPAIR: Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.

P-1 SHOPPING LIST ITEM No.-168 PAGE No. 1 EXHIBIT P-40

		WEAPON S	SYSTEMS		LYSIS EXHI	BIT		DATE: February	1997	
				P-1 ITEM I				QUIP (84V	Z)	
ELEMENT OF COST	CODE	FY	1996			FY	1998	FY	1999	
		QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	
SURFACE SHIPS(N86)	Α		5278		4047		1373		1060	
Environmental	А		(1684)		(1335)		(350)		(292)	
Safety	Α		(572)		(347)		(199)		(121)	
Energy Conservation	А		(1800)		(1505)		(489)		(541)	
Major Repair	А		(1222)		(860)		(335)		(106)	
TOTAL			5278		4047		1373		1060	
	ELEMENT OF COST  SURFACE SHIPS(N86)  Environmental  Safety  Energy Conservation  Major Repair	RIATION/BUDGET ACTIVITY ORDNANCE SUPPORT EQUIPMENT  ELEMENT OF COST  SURFACE SHIPS(N86)  A  Environmental  A  Safety  A  Energy Conservation  A  Major Repair  A	RIATION/BUDGET ACTIVITY ORDNANCE SUPPORT EQUIPMENT  ELEMENT OF COST  SURFACE SHIPS(N86)  Environmental  A  Safety  A  Energy Conservation  A  Major Repair  A  A	CODE   CODE	P-5     P-1	P-5     P-1	P-1   ITEM NOMENCLATURE/SUE   INDUSTRIAL FACILIT   TOTAL COST IN THO	P-5     P-1	P-5   February   RIATION/BUDGET ACTIVITY   ORDNANCE SUPPORT EQUIPMENT   INDUSTRIAL FACILITIES-CAL EQUIP (84V   TOTAL COST IN THOUSANDS OF DOLLAR   TOTAL COST IN THOUSANDS OF DOLLAR   TOTAL COST   TO	

P-1 SHOPPING LIST

ITEM No.-168 PAGE No. 2

EXHIBIT P-40 UNCLASSIFIED

EXHIBIT P-25, PRODUC	TION SUPPORT A	ND INDUSTRIAL	FACILITIES COS	T ANALYSIS			DATE:			
							FEBRUARY 1997			
APPROPRIATION/BUDG	ET ACTIVITY						P-1 ITEM NOMEN	CLATURE		
OTHER PROCUREMENT	, NAVY/BA:4 ORDI	NANCE SUPPORT					INDUSTRIAL FAC	ILITIES-CAL EQU	JIP (84VZ)	
ANNUAL CAPACITY BE	FORE PROJECT	(1-8-5)					ANNUAL CAPAC	ITY AFTER PRO	JECT (1-8-5)	
FACILITY NAME: NIROP	FRIDLEY, MN; Op	erated by UNITED I	DEFENSE, L.P.	LOCATION: FRI	DLEY, MINNESOTA		TYPE: GOCO			
COST ELEMENTS \$M	1996	1997	1998	1999	2000	2001	2002	2003	To Complete	Total
Construction										
Equipment										
Equipment Install										
Contract Support										
Corps of Engrs										
Other	3.300	2.000	0.750	0.500	0.960	0.550	0.550	0.550		9.160
Total Fac Costs										
Other Prove-out										
MILCON										

#### PROJECT DESCRIPTION:

This line item provides funding for capital type rehabilitation projects under categories outlined below for NIROP Fridley, MN; operated by United Defense, L.P.

ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations.

These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.

SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations.

These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.

ENERGY CONSERVATION MANAGEMENT: Provides funds for reducing energy consumption as mandated by Congress in 1993.

MAJOR REPAIR: Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.

#### MILESTONES:

All projects will be completed within 18 months from contract award date.

P-1 SHOPPING LIST ITEM No. 168 PAGE No. 3 EXHIBIT P-25

EXHIBIT P-25, PRODUC	TION SUPPORT A	AND INDUSTRIAL	FACILITIES COST	ANALYSIS			DATE:			
							FEBRUARY 1997			
APPROPRIATION/BUDG	ET ACTIVITY						P-1 ITEM NOMEN	ICLATURE		
OTHER PROCUREMENT	, NAVY/BA:4 ORD	NANCE SUPPORT					INDUSTRIAL FAC	ILITIES-CAL EQI	JIP (84VZ)	
ANNUAL CAPACITY BE	FORE PROJECT	(1-8-5)					ANNUAL CAPAC	ITY AFTER PRO	JECT (1-8-5)	
FACILITY NAME: NIROP	PITTSFIELD, MA;	Operated by GENE	RAL DYNAMICS	LOCATION: PIT	TSFIELD, MASSAC	HUSETTS	TYPE: GOCO		` '	
COST ELEMENTS \$M	1996	1997	1998	1999	2000	2001	2002	2003	To Complete	Total
Construction										
Equipment										
Equipment Install										
Contract Support										
Corps of Engrs										
Other	1.000	2.000	0.650	0.600	0.040	0.550	0.550	0.550		5.940
Total Fac Costs										
Other Prove-out										
MILCON										

#### PROJECT DESCRIPTION:

This line item provides funding for capital type rehabilitation projects under categories outlined below for NIROP PITTSFIELD, MA; Operated by GENERAL DYNAMICS.

ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations.

These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.

SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations.

These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.

ENERGY CONSERVATION MANAGEMENT: Provides funds for reducing energy consumption as mandated by Congress in 1993.

**MAJOR REPAIR:** Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.

#### MILESTONES:

All projects will be completed within 18 months from contract award date.

P-1 SHOPPING LIST ITEM No. 168 PAGE No. 4 EXHIBIT P-25
UNCLASSIFIED

EXHIBIT P-25, PRODUCT	TION SUPPORT A	ND INDUSTRIAL FA	ACILITIES COST AN	NALYSIS			DATE:			
							FEBRUARY 1997			
APPROPRIATION/BUDG	ET ACTIVITY						P-1 ITEM NOMEN	CLATURE		
OTHER PROCUREMENT,	NAVY/BA:4 ORDN	NANCE SUPPORT					INDUSTRIAL FAC	ILITIES-CAL EQU	JIP (84VZ)	
ANNUAL CAPACITY BEI	FORE PROJECT (	1-8-5)					ANNUAL CAPAC	ITY AFTER PRO	JECT (1-8-5)	
FACILITY NAME: NWIRP	BEDFORD, MA; O	perated by RAYTHE	ON CORPORATION	LOCATION: BED	FORD, MASSACH	USETTS	TYPE: GOCO			
COST ELEMENTS \$M	1996	1997	1998	1999	2000	2001	2002	2003	To Complete	Total
Construction										
Equipment										
Equipment Install										
Contract Support										
Corps of Engrs										
Other	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
Total Fac Costs										
Other Prove-out	•									
MILCON										

#### PROJECT DESCRIPTION:

This line item provides funding for capital type rehabilitation projects under categories outlined below for NWIRP BEDFORD, MA; Operated by RAYTHEON CORPORATION.

ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations.

These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.

SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations.

These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.

ENERGY CONSERVATION MANAGEMENT: Provides funds for reducing energy consumption as mandated by Congress in 1993.

**MAJOR REPAIR:** Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.

#### MILESTONES:

All projects will be completed within 18 months from contract award date.

P-1 SHOPPING LIST ITEM No. 168 PAGE No. 5

EXHIBIT P-25

UNCLASSIFIED

EXHIBIT P-25, PRODUCT	TION SUPPORT A	ND INDUSTRIAL F	<b>ACILITIES COST A</b>	NALYSIS			DATE:			
							FEBRUARY 1997			
APPROPRIATION/BUDG	ET ACTIVITY						P-1 ITEM NOMEN	ICLATURE		
OTHER PROCUREMENT,	NAVY/BA:4 ORDN	NANCE SUPPORT					INDUSTRIAL FAC	ILITIES-CAL EQI	JIP (84VZ)	
ANNUAL CAPACITY BEI	ORE PROJECT (	1-8-5)					ANNUAL CAPAC	ITY AFTER PRO	DJECT (1-8-5)	
FACILITY NAME: NWIRP	BRISTOL, TN; Op	erated by RAYTHEC	N CORPORATION	LOCATION: BRIS	STOL, TN		TYPE: GOCO			
COST ELEMENTS \$M	1996	1997	1998	1999	2000	2001	2002	2003	To Complete	Total
Construction										
Equipment										
Equipment Install										
Contract Support										
Corps of Engrs										
Other	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		1.000
Total Fac Costs										
Other Prove-out	•									
MILCON										

#### PROJECT DESCRIPTION:

This line item provides funding for capital type rehabilitation projects under categories outlined below for NWIRP BRISTOL, TN; Operated by RAYTHEON CORPORATION.

ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations.

These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.

SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations.

These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.

ENERGY CONSERVATION MANAGEMENT: Provides funds for reducing energy consumption as mandated by Congress in 1993.

**MAJOR REPAIR:** Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.

#### MILESTONES:

All projects will be completed within 18 months from contract award date.

P-1 SHOPPING LIST ITEM No. 168 PAGE No. 5

EXHIBIT P-25

UNCLASSIFIED

EXHIBIT P-25, PRODUCT	TION SUPPORT AN	D INDUSTRIAL FAC	CILITIES COST A	ANALYSIS			DATE:						
							FEBRUARY 1997						
APPROPRIATION/BUDG	ET ACTIVITY						P-1 ITEM NOME	NCLATURE					
OTHER PROCUREMENT,	NAVY/BA:4 ORDNA	ANCE SUPPORT					INDUSTRIAL FAC	ILITIES-CAL EQU	IIP (84VZ)				
ANNUAL CAPACITY BEI	FORE PROJECT (1-	-8-5)					ANNUAL CAPAC	ITY AFTER PRO	JECT (1-8-5)				
FACILITY NAME: BOW D	OME FACILITY; Ope	erated by HITCO TEC	CHNOLOGIES	LOCATION: LON	IG BEACH, CA		TYPE: GOCO						
COST ELEMENTS \$M	1996	1997	1998	1999	2000	2001	2002	2003	To Complete	Total			
Construction													
Equipment													
Equipment Install													
Contract Support													
Corps of Engrs													
Other	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000			
Total Fac Costs													
Other Prove-out	ve-out												
MILCON													

#### PROJECT DESCRIPTION:

This line item provides funding for capital type rehabilitation projects under categories outlined below for BOW DOME FACILITY; Operated by HITCO TECHNOLOGIES, Long Beach, CA.

ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations.

These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.

SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations.

These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.

ENERGY CONSERVATION MANAGEMENT: Provides funds for reducing energy consumption as mandated by Congress in 1993.

**MAJOR REPAIR:** Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.

#### MILESTONES:

All projects will be completed within 18 months from contract award date.

P-1 SHOPPING LIST ITEM No. 168 PAGE No. 7 EXHIBIT P-25 UNCLASSIFIED

CLASSIFICATION: UNCL	.ASSIFIED							DATE: FEBR	RUARY 1997
			<b>BUDGET IT</b>	EM JUST	IFICATION S	HEET			
APPROPRIATION/BUDGET	ACTIVITY	7		P-40			P-1 ITEM NO	OMENCLA	TURE
OTHER PROCUREMENT, NAVY BA-4 SUPPORT EQUIPMENT							STOCK SURVE	ILLANCE EQU	JIPMENT
QUANTITY	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	
COST (in millions)	1.4	1.4	1.3	1.5	1.6	1.6	1.6	1.7	

These funds are to procure test systems and equipment in support of the NAVSEA Quality Evaluation Program (O&MN). The purpose of this program is to (1) determine, through stock surveillance, the safety, reliability, readiness and service and shelf life of Navy and Marine Corps weapons and weapon systems, (2) determine extent and cause of material degradation, and (3) analyze the performance and effectiveness of the weapon systems through stockpile to target sequence tests.

The test equipment is for evaluations of in-service weapons such as mines, gun ammunition, missiles, and torpedoes and will be located at NAVSEA activities. Requirements for test equipment come from a need to replace obsolete or irreparable equipment or to acquire new or expanded test capability when new or modified weapons enter the stockpile, or when new evaluation techniques or processes are needed.

The equipment is generally "one of a kind" procurement and is used to support the generic ordnance types displayed in the P-5 exhibit.

CLASSIFICATION: **UNCLASSIFIED** DATE: FEBRUARY 1997 **WEAPON SYSTEMS COST ANALYSIS** APPROPRIATION/BUDGET ACTIVITY P-5 P-1 ITEM NOMENCLATURE/ **SUBHEAD** OTHER PROCUREMENT, NAVY STOCK SURVEILLANCE BA-4 ORDNANCE SUPPORT EQUIPMENT **EQUIPMENT 84V1** COST **ELEMENT OF COST IDENT** FY 1996 FY 1997 FY 1998 FY 1999 CODE CODE **TOTAL COST TOTAL COST** QTY QTY QTY **TOTAL COST** QTY TOTAL COST V1001 SURFACE SHIPS (N86) Gun Ammunition Test Equipment 363 308 295 350 Pyro/Demo Test Equipment 311 313 300 247

327

130

332

1408

0

225

330

275

1440

298

257

321

1526

203

172

309

1292

Missile Test Equipment

Mine Test Equipment

Torpedo Test Equipment

TOTAL

MC Ammunition Test equipment

**CLASSIFICATION:** 

## **UNCLASSIFIED**

		BUDGET I P-40	TEM JUST	IFICATION	SHEET		DATE: February	1997
APPROPRIATION/B					P-1 ITEM NO	MENCLATUR	RE	
OTHER PROCUE BA-4 ORDNANC	•	` '			PYROTECH	NIC AND DEM	IOLITION (SC	PF) - LI 5621
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (In Millions)	<b>\$9.4</b>	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

\*

DD Form 2454, JUN 86

FY97 and beyond budgeted in the P-1 Engagement Systems Support # 151

P-1 SHOPPING LIST

**CLASSIFICATION:** 

ITEM NO.-

170

PAGE NO. 1

**UNCLASSIFIED** CLASSIFICATION:

		<b>BUDGET ITE</b>	M JUSTIFICA	TION SHEET			DATE:	
		P-40					FEBRUARY '	1997
APPROPRIATION/BUDGE	T ACTIVITY				P-1 ITEM NOME	NCLATURE		
OTHER PROCUREM	ENT, NAVY				<b>FLEET MINE</b>	SUPPORT (74	4VT)	
<b>BA-4: ORDNANCE S</b>	UPPORT EQL	JIPMENT					•	
	1996	1997	1998	1999	2000	2001	2002	2003
QUANTITY								
COST								
(In Millions)								
	\$6.0	\$5.3	\$5.3	\$5.4	\$5.6	\$5.8	\$5.9	\$6.1

ITEM DESCRIPTION/JUSTIFICATION:

The Fleet Mine Support program provides for procurement of material and production support for readiness of all mines in stockpile. This includes both the service mine program and the Mine Exercise and Training (MET) Program in accordance with OPNAVNOTE C8550.

A service mine is an explosive undersea weapon for use against combat targets. It consists of an explosive loaded case, mine arming/firing actuation components and explosive initiators. Quantities and asset readiness objectives are described in OPNAVINST C8550.5M.

The requirements for the MET program are specified in OPNAVNOTE C8550. This program has two distinct facets: one supports the exercising of aircraft and submarine mine delivery forces to ensure delivery proficiency and the second supports the proficiency training of Surface and Airborne Mine Countermeasures (MCM) forces. The material inventory involved in the Fleet Mine Support program is centrally managed by Naval Ordnance Command Inventory Management Systems Division for 6T-Cognizance Items.

#### PROGRAM FUNDS WILL BE USED TO PROVIDE THE FOLLOWING:

- A. Production engineering support for mine assembly and loading, proof and test of mine components delivered from procurement. Certification of specialization/documentation relating to mine material to be procured, engineering and quality assurance services in support of mine material procurements and publications in support of component assembly and test for service and MET program. (VT010, VT051, VT830, VT860)
- B. Procurement of service mine components and sub-assemblies required in support of mine assembly and maintenance to replace items of limited shelf-life such as batteries and pyrotechnics and other perishable or unserviceable items, procurement of components to improve mine operational characteristics and capabilities such as improved flight gear for compatibility with modern high speed aircraft. (VT300)
  - C. Procurement of mine materials to replace expended components used during the MET program for delivery proficiency. (VT310)
  - D. Procurement of mine materials to replace expended components used during the MET program for Mine Countermeasures (MCM) proficiency. (VT460)

P-1 SHOPPING LIST

CLASSIFICATION:

DD Form 2454, JUN 86

**ITEM NO. 171** PAGE NO. 1

		WEAPC P-5	N SYS	STEM COST ANA	ALYSI	S EXHIBIT			DATE: FEBRUAR	RY 1997
	PRIATION/BUDGET ACTIVITY PROCUREMENT, NAVY/			P-1 ITEM NOMEN	ICLAT	JRE/SUBHEAD				
BA-4:	ORDNANCE SUPPORT EQUIPMENT			FLEET MINE						
					TOTA	L COST IN THOUS	SANDS	OF DOLLARS		
COST CODE	ELEMENT OF COST	IDENT CODE		FY 1996		FY 1997	FY 1998			FY 1999
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST		
	MINE WARFARE, N852									
VT010	MINE ASSEMBLY & LOADING			1,203		741		45		61
VT051	FLEET MINE SITE MATERIAL			245		342		50		50
VT300	ITEMS LESS THAN \$500K	Α		320		162		0		0
VT310	BATTERY REQUIREMENTS	Α		63		228		92		93
VT460	VERSATILE EXERCISE MINE SYSTEM VEMS SUPPORT EQUIPMENT/PI	A	18	2,178 802	14	1,638 647	17	2,057 2,073	16	1,984 2,416
VT830	PRODUCTION ENGINEERING			594		441		544		413
VT840	QUALITY ASSURANCE			70		179		50		50
VT860	PROOF & TEST MINE COMP. PROC.			361		688		150		150
VT900	CONSULTING SERVICES			200		230		208		216
	TOTAL			6,036		5,296		5,269		5,433

**DD FORM 2446, JUN 86** 

P-1 SHOPPING LIST

ITEM NO. 171 PAGE NO. 2

**CLASSIFICATION:** 

### CLASSIFICATION: UNCLASSIFIED

			BUDGET PROCUREM			INING EXHI	BIT			DATE	
A DDD ODDIATION	I/BUDGET ACTIVITY			P-5A	P-1 ITEM NOM	ENCLATURE			SUBHEAD	FEBRUA	RY 1997
		/BA-4: ORDNANCE SUPPO	RT		F-I II EWINOWI	ENCLATURE			SUBHEAD		
EQUIPMEN.					FLEET MI	NE SUPPOF	RT			74VT74VT	
COST	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
VT460	FY 1996	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/96	03/97	18	121.0	YES	NO	
VT460	FY 1996	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/96	03/97	VAR*	VAR*	YES	NO	
VT460	FY 1997	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/97	01/98	14	117.0	YES	NO	
VT460	FY 1997	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/97	01/98	VAR*	VAR*	YES	NO	
VT460	FY 1998	BAeSEMA UNITED KINGDOM	SS/FFP/BASIC	NAVSEA	03/98	01/99	17	121.0	YES	NO	
VT460	FY 1998	BAeSEMA UNITED KINGDOM	SS/FFP/BASIC	NAVSEA	03/98	01/99	VAR*	VAR*	YES	NO	
VT460	FY 1999	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/99	01/00	16	124.0	YES	NO	
VT460	FY 1999	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/99	01/00	VAR*	VAR*	YES	NO	
REMARKS											

#### REMARKS

INCLUDES PRODUCT IMPROVEMENTS (ANECHOIC JACKETS, SONAR INSONIFICATION CAPABILITY, REAL TIME FEEDBACK, ETC), SEVERAL ANCILLARY ITEMS, AND CONTRACTOR ENGINEERING SUPPORT REQUIRED IN ADDITION TO VEM UNIT.

### CLASSIFICATION: UNCLASSIFIED

			BUDGET PROCUREM	MENT HISTORY	AND PLAN	INING EXH	BIT			DATE	
				P-5 <i>A</i>						FEBRUA	RY 1997
	I/BUDGET ACTIVITY				P-1 ITEM NOM	ENCLATURE			SUBHEAD		
OTHER PRO EQUIPMEN	•	/BA-4: ORDNANCE SUPPO	K I		FLEET MI	NE SUPPOI	RT			74VT74VT	
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
VT460	FY 2000	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/00	01/01	20	219.3	YES	NO	
VT460	FY 2001	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/01	01/02	VARIOUS	VARIOUS	YES	NO	
VT460	FY 2002	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/02	01/03	VARIOUS	VARIOUS	YES	NO	
VT460	FY 2003	BAeSEMA UNITED KINGDOM	SS/FFP/OPTION	NAVSEA	03/03	01/04	VARIOUS	VARIOUS	YES	NO	

REMARKS

CLASSIFICATION:

UNCLASSIFIED

P-21

APPROPRIATION	/BUDGET ACTIVITY					P-1 ITI	EM NOM	ENCLAT	TURE																					SUB	HEAD:					DATE	:					
OPN BA-4: O	RDNANCE SUPPORT EQUIPME	NT					FLEE	T MIN	IE SU	PPO	RT																					74V	Т				FEB	RUAF	RY 19	97		
COST	ITEM/MANUFACTURER/	S E	PROC	ACCEPT	BAL					FISCA	L YEAR			1996								FISCA	AL YEAR	₹		1997								FISCA	AL YEA	R		1998				L A
CODE	PROCUREMENT YEAR	R	QTY				1995			-	CALENE	DERA Y	/EAR				1996	-					CALEN	IDAR YE	AR		1997			٠					CALE	NDAR	YEAR			1998		T T
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VT460	VEMS																												1													+
V1460	VEINIO																																									+
	FY 1996 (OPTION)	EA	18	0	18						А										6		6		6																	0
	FY 1997 (OPTION)	EA	14	0	14	+																	A		Ť								5		5		4					0
	FY 1998 (BASIC)*	EA	17	0	17																									R					A							17
	FY 1999 (OPTION)*	EA	16	0	16																																					16
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		S		ACCEPT	BAL					FISCA	L YEAR			1999								FISCA	AL YEAR	2		2000								FISCA	AL YEA	R		2001				L
COST	ITEM/MANUFACTURER/ PROCUREMENT YEAR	E R	PROC			-	1998		1	_	CALENE	AP VE	ΛD				1999			- 1			CALEN	IDAP VE	۸Þ		2000			1					CALE	NDAR	VEAD			2001		A T
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VT460	VEMS																																									
	FY 1998 (BASIC)*	EA	17	0	17				5		6		6																													
	FY 1999 (OPTION)*	EA	16	0	16					ļ	A										5		5		6																	
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MANAFACTURER'S NAME AND LOCAT		MIN RATE	1-8-5	MAXIMUM	REACHED D+								LEAD T	ADMIN IME			MANU-			TOTAL				REMA	RKS	*																
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ITEM NO. 171

PAGE NO. 5 A =CONTRACT AWARD

K = FROCOREWENT REQUEST

CLASSIFICATION

**UNCLASSIFIED** CLASSIFICATION:

	ION/BUDGET ACTIVITY  ORDNANCE SUPPORT I	EQUIPME	NT			P-1 I	FLEE			JPPC	ORT																		SUBI	HEAD:	74V	/Т			DATE		BRU	ARY	1997		
COST	ITEM/MANUFACTURER/	S E	PROC	ACCEPT	BAL					FISCA	L YEAF	!	199	9							FISC	AL YEAR	R	2	2000								FISC	AL YE	AR		2001				
CODE	PROCUREMENT YEAR	R	QTY			<b>-</b>	1998			C	CALEND	ERA YE	AR			1999						CALEN	IDAR YI	FAR		2000			1			Ī		CALI	ENDAF	R YFA	ıR		2001		1
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VT460	VEMS							-						_	-		_	_																		_					4
	FY 2000 (OPTION)*	EA	10	0	10	)																Α										5		5							┸
	FY2001 (OPTION)*	EA	10	0	10	)																												Α							
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**ITEM NO. 171** 

page 6

A =CONTRACT AWARD

**UNCLASSIFIED** CLASSIFICATION:

P-21

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**ITEM NO. 171** page 7

A =CONTRACT AWARD

CLASSIFICATION: UNCLASSIFIED

		BUDG	ET ITEM JU	STIFICATION SI	HEET			DATE
			P-4	10				February 1997
APPROPRIATION/BU	JDGET ACTI	VITY		P-1 ITEM NO	MENCLATURE			
OTHER PROCUREM	ENT, NAVY							
BA-4 ORDNANCE SU	JPPORT EQU	JIPMENT		SURFACE TR	AINING DEVIC	CE MODIFICAT	IONS LI: 5	5660
	1996	1997	1998	1999	2000	2001	2002	2003
QUANTITY								
COST (in Millions)	*\$8.6	\$2.4	\$4.8	\$4.5	\$5.4	\$5.0	\$4.6	\$4.5

(L/I 5660)

This line provides funds to modify/upgrade training devices to maintain systems at Fleet configuration and to enhance training capability.

#### (TS004) SURFACE TRAINING DEVICE MODS

Provides funding for minor modifications with a unit cost of less than \$1.0M per device. These modifications are improvements/upgrades to in-service surface training systems identified by the program offices and training activities, and are approved by the Resource Sponsor. Modifications are required to meet safety standards, keep training systems compatible with equivalent changes made to fleet operational equipment, and to enhance training capabilities.

#### (TS016) DEVICE 20G6, LANDING CRAFT, AIR CUSHION (LCAC) FULL MISSION TRAINER (FMT) UPGRADE

Provides funding for minor modifications which are improvements/upgrades to in-service surface training systems. These improvements/upgrades are required to keep training systems compatible with equivalent changes made to fleet operational equipment and to enhance trainer capabilities. The unit cost of each minor modification ranges from \$25K to \$1.0M.

#### (TS017) SURFACE SHIP ELECTRONIC WARFARE TRAINER (SSEWT)

The SSEWT is a multi-faceted training device capable of providing familiarization and introduction to the Electronic Warfare environment. This trainer will replace the Surface Warfare portion of Device 10H1 (NEWTS), with a new Cog 2"0" system. This system will provide interactive courseware to as many as 20 students simultaneously or independently at the discretion of the instructor. The SSEWT interactive courseware will provide instruction in the form of lessons or can be used in scenario format. The fundamental purpose of the trainer is to introduce to the "A" school EW rating familiarization with operating environments, both generically and specifically. The system provides basic, intermediate and advanced training capabilities for the apprentice EW operator. The system will consist of state-of-the-art hardware/software so it can adjust to the advancing technology of EW without the necessity of upgrades. The system will augment training on the AN/SLQ-32 as well as the proposed Advanced Integrated Electronic Warfare System (AIEWS).

#### \*FY 96 FUNDING TRANSITIONED FROM BA-7, TRAINING DEVICE MODIFICATIONS, LI:8089.

DD Form 2454, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO. 172 PAGE NO. 1

	PONS SYSTEM COST ANAL BIT (P-5)	Activit	propriation y Title/No. ORDNAN EQUIPME	CE SUPPORT	SURFACE	opular Name	ıs	C. Manufact Plant City/St VARIOUS		DATE: February 1997
	WEAPONS SYSTEM COST ELEMENTS	IDENT		FY 1996*	TOTAL CO	OST IN THOUS	SANDS O	F DOLLARS		FY 1999
		CODE		TOTAL		TOTAL		TOTAL		TOTAL
			QTY	COST	QTY	COST	QTY	COST	QTY	COST
	SURFACE MODS (N85/N86) SURFACE TRAINING DEVICE MODS Surface Minor Mods (N85) Surface Minor Mods (N86)  LCAC FMT UPGRADE, DEVICE 20G6 Device 20G6 (N85) Technical Support (N85) Initial Training (N85)  SURFACE SHIP ELECT WARFARE TRAINER (N85)		2	2,662 (0) (2,662) 5,463 (4,900) (413) (150) 498 (498)		2,448 (0) (2,448) 0		4,829 (0) (4,829) 0		4,481 (940) (3,541) 0
EXF	PEDITIONARY WARFARE (N85) TOTAL SURFACE WARFARE (N86) TOTAL TOTALS			5,961 2,662 8,623		0 2,448 2,448		0 4,829 4,829		940 3,541 4,481
	*FY 96 FUNDING TRANSITIONED FR	OM BA	-7. TRAIN	  ING DEVICE	I Modificat	 TIONS. LI:8089	•			
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ITEM NO.172

P-1 SHOPPING LIST

PAGE NO.2 CLASSIFICATION:

## CLASSIFICUING LASSIFIED

	BUDGET	PROCUREME	NT HISTO	ORY AND PL	ANNING	G (P5A)				DATE	February 199
OTHER F	RIATION/BUDGET ACTIVITY PROCUREMENT, NAVY CONANCE SUPPORT EQUIPMENT			P-1 ITEM NOM				ATIONS 84	TS		
COST	LINE ITEM FISCAL YEAR	CONTRACTOR	CONTRACT METHOD & TYPE		AWARD	DATE OF FIRST DELIVERY		UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAIL.
TS016	LCAC FMT UPGRADE DEVICE 20G6 (FY96)	HUGHES INC.	SS	NAWCTSD	10/96	04/98	2	2,732	YES	YES	02/95

REMARKS, IF ANY, CAN BE FOUND AT THE END OF PROCUREMENT HISTORY AND PLANNING SHEETS

DD FORM 2446-1, JUL 87

P-1 SHOPPING LIST

CLASSIFICIATION:

ITEM NO. 172 PAGE NO. 3

SIM									
Oliv	ULATOR AND TR	AINING DEVICE JUS	TIFICATIO	N (\$000)		Date	· F	February 1997	
Appropriation P-1 Line	Item	Weapon System (if appli	cable)	Equipment N	lomenclature		PE	-	
	5660	N/A		Surface Tra	aining Devic	e Modification	0804731N		
Fin Plan	Prior Yea	rs *FY96	FY97	FY98	FY99	FY00	FY01	FY02	TOTAL
Quantity		0		VAR	VAR	VAR	VAR	VAR	VAR
Proc		\$8,623	\$2,448	\$4,829	\$4,481	\$5,395	\$4,970	\$4,618	\$35,364
RDT&E									
O&S									
changes made to fleet ope	erational equipment, and to	enhance training capabilities.							ralent
The SSEWT is a multi-fact of Device 10H1 (NEWTS), instructor. The SSEWT in A school EW rating familia apprentice EW operator. augment training on the AI (TS016) DEVICE 20G6, IThe LCAC FMT provides of the school o	with a new Cog 2"0" systemateractive courseware will praization with operating enviolation with operating enviolation with operating enviolations will consist of switchest as well as the practical content of the cont	E TRAINER (SSEWT) a of providing familiarization a m. This system will provide i vovide instruction in the form o ronments, both generically ar tate-of-the-art hardware/softw oposed Advanced Integrated  SHION (LCAC) FULL MISSI operators, engineers, and na sion Trainer in same operatio	nteractive cours of lessons or car of specifically. The cours of car action of the cours of the course of the cours of the course of the cours of the course of the cours of the course	eware to as mar n be used in sce The system prov ljust to the advar are System (AIE FMT) UPGRADI normal and cas	ny as 20 studen nario format. T ides basic, inter noting technolog (WS).	nnment. This trans ts simultaneous the fundamenta mediate and ac y of EW withou	sly or independe I purpose of the d dvanced training It the necessity o	ntly at the discretion trainer is to introduc capabilities for the of upgrades. The sy	e portion of the e to the stem will
The SSEWT is a multi-fact of Device 10H1 (NEWTS), instructor. The SSEWT in A school EW rating familia apprentice EW operator. augment training on the AI (TS016) DEVICE 20G6, If The LCAC FMT provides of and block upgrades design	eted training device capable, with a new Cog 2"0" syste teractive courseware will prarization with operating envi The system will consist of s N/SLQ-32 as well as the prevaluation of training to LCAC ned to maintain the Full Mis	e of providing familiarization a m. This system will provide i ovide instruction in the form of ronments, both generically an tate-of-the-art hardware/softw oposed Advanced Integrated SHION (LCAC) FULL MISSI operators, engineers, and na	nteractive cours of lessons or car of specifically. The care so it can accommodate the country of the care so it can accommodate the care so it can accommo	eware to as mar in be used in sce The system provijust to the advar are System (AIE FMT) UPGRADI normal and cas as fleet operation	ny as 20 studen nario format. T ides basic, inter noing technologows).  Substitute of the state	nnment. This trans ts simultaneous the fundamenta mediate and ac y of EW withou	sly or independe I purpose of the d dvanced training It the necessity o	ntly at the discretion trainer is to introduc capabilities for the of upgrades. The sy	e portion of the e to the stem will

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Classification:

EXHIBIT 43A PAGE 1 OF 2

P-43 Simulator & Training Device Justification

Classification: UNCLASSIFIED

SIMULATO	R AND TRAININ	G DEVICI	E JUSTIF	CATION (I	Page 2	2) (\$000)		Date	Э		February 199	7
Appropriation P-1 Line	Item	Weapon Sy	stem (if app	olicable)	IOC Da	ite	Equip	ment Nom	enclatu	ire	PE	
Other Procurement, Navy	LI: 5660						SURF	TRAINING I	DEVICE	MODS	0804731N	
		Deliver	Ready	_				Y96*		Y97	FY9	0
Training Device		у	for	Student								
Ву Туре	Site	Date	Date	Throughp	ouQTY	Cost	QTY	Cost	QTY	Cost	QTY	Cost
TS004 SURFACE TRAI												
VAR	VAR	VAR	VAR	N/A			VAR	\$2,662	VAR	\$2,448	VAR	\$4,829
TS017) SURFACE SHI	D ELECTRONIC WAR	EADE TO A	INED (SSEW	/T\								
OPERATOR	NTTC CORY STA. FL	09/97	12/97	<u>''')</u>	-		1	\$498				
JPERATOR	NTIC CORY STA. FL	09/97	12/97				1	\$498				
(T0040)   040 FMT DE	VIOT 0000											
(TS016) LCAC FMT DE												
OPERATOR/TEAM	EWTG LITTLE CREEK		03/98	48			1	\$2,732				
OPERATOR/TEAM	EWTG CORONADO, O	05/98	06/98	48			1	\$2,732				
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FY 96 FUNDING TRAN	SITIONED EDOM PA	7 TRAININA	G DEVICE M	ODIFICATION	NS II.o	089						
1 1 30 FUNDING TRAN	SITIONED FROM BA-	I, INAININ	JEVICE IV	DIFICATIO	13, 11.0							<del>                                     </del>
		<u> </u>	 P-1 SHOPPII	IG LIST	PAC	E NO.					<u> </u>	
			TEM NO.	172	5		EXHI	BIT P-43	page	2 of 2		

Classification: UNCLASSIFIED

#### CLASSIFICATION:

#### **UNCLASSIFIED**

CLASSII ICATION.		CHOLAG							
		BUDGET ITE	M JUSTIFICA	TION SHEET			DATE		
			P-40					February 1997	7
APPROPRIATION/B	UDGET ACT	IVITY			P-1 ITEM NO	MENCLATURE			
OTHER PROCUREM	ENT, NAVY								
BA-4 ORDNANCE S	UPPORT EQ	UIPMENT			SUBMARINE	TRAINING DE	VICE MODIFIC	ATIONS LI: 5	661
	PRIOR	FY96 *	FY97	FY98	FY99	FY00	FY01	FY02	FY03
QUANTITY	YEARS								
COST (In Millions)	N/A	\$13.7	\$19.3	\$23.0	\$23.3	\$27.3	\$30.0	\$19.8	\$20.7

#### (L/I 5661)

This line provides funds to modify/upgrade training devices to keep them compatible with equivalent changes made to Fleet operational equipment and to enhance trainer systems capabilities.

#### (TD002) SUBMARINE TRAINING DEVICE MODS

Provides funding for minor modifications which are improvements/upgrades to in-service submarine training systems which are centrally managed systems. These improvements/upgrades are required to keep training systems compatible with equivalent changes made to fleet operational equipment and to change trainer capabilities to meet emergent training requirements.

#### (TD003) SUBMARINE COMBAT SYSTEM TEAM TRAINER (SCSTT) - DEVICE 21A43

To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shorebased training facilities capable of training submarine combat system team personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment.

The Combat Control System (CCS) MK 1 and CCS MK 2 are installed, or being installed, on SSN 688 and SSBN 726 (TRIDENT) Class submarines. CCS MK 1 and AN/BSY-1 submarines received a block change in FY94 which installed C4.2 Revision 1. This change provides for Tomahawk Block III and partial Harpoon 1C weapons employment. CCS MK 1 submarines will receive Basic kits (initial update of CCS MK1 to CCS MK2) and CCS MK2 Block changes.

The CCS MK1 tactical program was upgraded in FY93 to include OTH Version 3.2.0, Global Positioning System (GPS) navigation interface, and the implementation of CCS MK1 C4.2 Revision 1. BSY-1 upgrades from the UYK-7 to the UYK-43 computer along with the above MK 1 enhancements via the BSY-1 ECI 010 program. CCS MK 2 ECP 006 will deliver concurrent with the CCS MK 2 DO Block 1 Program and includes Tomahawk Block III, Harpoon Block 1C, ADCAP mods, NTCSA, and ATWCS (Advanced Tomahawk Weapon Control System).

DD Form 2454, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

\* Note: FY96 funds are provided from BA-7 87YZ LI 8089 ITEM NO. 173 PAGE NO. 1 UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SH	EET	DATE
P-40	February 1997	
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
OTHER PROCUREMENT, NAVY		
BA-4 ORDNANCE SUPPORT EQUIPMENT	SUB TRAINING DEVICE MODS	LI: 5661

The CCS MK2 tactical program is to be upgraded to include CCS MK 2 Block 1 C. This includes Combat Display Console (CDC) color/landscape, AN/BYH-1 SUBRASS replacement, CPU parallel processor removal, AN/UYK-44 removal, Mk 23 Graphic Plotter OER, Combat Team OnBoard Trainer (COBT), additional ADCAP upgrades, and FTAG improvements. CCS MK 2 Block 1 also introduces the Advanced Tomahawk Weapon Control System (ATWCS), NTCS-A and Tomahawk Block Improvement Program (TBIP) which consists of Tomahawk Weapon improvements.

The Submarine Multi Mission Team Trainer (SMMTT) Phases 1, 2, 3 program replaces the proprietary mainframe computer system by re-hosting functions on industry standard Local Area Network (LAN) workstations. The mainframes can no longer be upgraded due to service life. The SMMTT modification applies to both the CCS trainers and the acoustic trainers and will occur in three distinct phases. SMMTT Phase 1 provides partial offload of the trainer-unique software and provides additional processing power through the use of independent workstations. SMMTT Phase 2 completes the trainer-unique software offload and enables further enhancements. SMMTT Phase 3 will replace all MIL Standard hardware with commercial emulation hardware, enabling platform independence and wide area network capability. The use of open architecture trainer systems allows for the continuous growth of functional flexibility ultimately leading to employment training conducted for any submarine CCS. Plans are established to likewise upgrade submarine tactical systems to an open architecture, and the trainers will be compatible with the tactical interfaces.

FY97 Procures one SMMTT Phase 2 re-host of the SIM/STIM acoustic functions for CCS standalone mode for the CCS Engineering Production Model (EPM).

FY98 Procures the trainer unique hardware to upgrade the CC EPM at NUWC, Newport to provide SMMTT Phase 2 functions to support the Trainer EPM with the CCS Mk2 Block 1C upgrade. Procures one SMMTT Phase 1 Trainer upgrade kit to support CCS Mk2 D0 in the 21A43 SCSTT. Offloads selected weapons functions from CCS Mk1 Generalized Simulation Stimulation (GSS) software to SMMTT Phase 2 architecture for the CC EPM.

FY99 Offloads non-weapon functions of CCS Mk1 GSS software to SMMTT Phase 2 architecture. Procures two SMMTT Ph1 trainer upgrade kits for the 21A43 SCSTT to support CCS Mk2 Block 1C. Procures one SMMTT Ph2 trainer upgrade kit to support CCS Mk2 D0 Block 1C for the 21A43 SCSTT.

DD Form 2454, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO. 173 PAGE NO. 2

BUDGET ITEM JUSTIFICATION S	HEET	DATE
P-40	February 1997	
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
OTHER PROCUREMENT, NAVY		
BA-4 ORDNANCE SUPPORT EQUIPMENT	SUB TRAINING DEVICE MODS	LI: 5661

#### (TD005) SUBMARINE ACOUSTIC TRAINER - DEVICE 21B64

The AN/BQQ-5B/C/D(V) Series Sonar Systems are installed aboard SSN 594/637/688 Class submarines. The AN/BQQ-5E(V3)/(V4) will be is being installed aboard SSN 688 and SSBN 726 (TRIDENT) Class submarines. The Submarine Acoustic Trainer, Device 21B64, simulates the digital data processing and graphic displays of the associated AN/BQQ-5(V) tactical system. The Tactical Acoustic Rapid COTS (commercial-off-the-shelf) Insertion (ARCI) Phase I upgrades AN/BQQ5E(V) systems to incorporate dual array processing, full spectrum processing and low frequency active rejection capabilities.

Device 21B64 supports training for enlisted and officer pipelines. It provides individual operators and combat teams the opportunity to train ashore, prior to, and between deployments. The shore based training provides a means of maintaining team proficiency in stand alone or in combined team mode when tied to Device 21A series Attack Trainers.

FY97 upgrades the common Acoustic Trainer EPM with additional ARCI Phase I towed array capability; additional acoustic functions are re-hosted into SMMTT. FY97 will upgrade three trainers to the 21B64E(V) SMMTT Phase I supporting ARCI Phase I.

FY98 Procure modifications to offload the remainder of 21B64E(V) ARCI Phase I SIM/STIM software into the SMMTT Ph 2 architecture for the acoustic trainer EPM.

FY99 Procures modifications to the Acoustic Trainer EPM for the SMMTT Ph2 operating system software with selected upgrades to support the ARCI Phase III functionality. Procures modifications to the SMMTT Phase 2 software to support Medium Frequency Active Improvements (MFAI) for the Acoustic Trainer EPM.

#### (TD006) SSN COMBAT CONTROL OPERATOR TRAINER / COMMON BASIC OPERATOR TRAINER (CBOT)

The purpose of these devices is to provide pipeline training to submarine force personnel who require basic and advanced operator training and to provide refresher training to Fleet personnel designated to sustain their required level of operator competence. These devices train individual operators on the CCS MK 1/ MK 2, and AN/BSY-1 by supplementing classroom instructions with dynamic training exercises. Through the use of these training devices, the student obtains direct, interactive experience in Command, Weapon, Target Motion Analysis (TMA), and Over-The-Horizon (OTH) operations in order to develop the skills required for effective command and control operations.

DD Form 2454, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO. 173 PAGE NO 3

BUDGET ITEM JUSTIFICATION S	HEET	DATE
P-40	February 1997	
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
OTHER PROCUREMENT, NAVY		
BA-4 ORDNANCE SUPPORT EQUIPMENT	SUB TRAINING DEVICE MODS	LI: 5661

These devices provide an environment substantially equivalent to that found onboard ship, thus enabling students to develop and maintain the combat control expertise necessary to support Fleet operations. FY-90 established the requirement to provide advanced operator training for CCS MK 2 to support SSN 688, SSN 751 (AN/BSY-1), and TRIDENT SSBN (OHIO) Class submarines. The upgrades to the 21B63 operator trainer (OT) provides a common operator trainer capable of training all SSNs and SSBNs equipped with the CCS MK 2. To reduce life cycle cost, the 21B63 uses a subset of the 21A43 SCSTT simulation/stimulation hardware suite in its design. The Fire Control Submarine and IUSS Training Requirements Review (SITTR) of 6/92 established the requirements for Common Basic Operator Trainers (CBOT) to support revised A-School training pipelines.

FY98 Procures trainer unique software modifications to upgrade the CBOT EPM and the training site CBOT, with the CBOT Mk2 D0 Block 1C configuration.

FY99 Procures trainer unique software modifications to upgrade the CBOT EPM and the training site CBOT, with the CCS Mk2 D0 Block 1C link 16 functions configuration.

#### (TD011) AN/BSY-1 IMPROVEMENTS

AN/BSY-1 trainers support shorebased training for crews of SSN 751 Class submarines fitted with the AN/BSY-1 integrated Combat Control / Acoustic (CC/A). CC/A Team Trainers support subteam training in combat control and acoustics as well as full combat system team training. The AN/BSY-1 Team Trainer was baselined on two subsystem trainers: the CC subsystem is similar to a Device 21A43, and the acoustic subsystem is similar to a Device 21B64. The Trainer SMMTT program will occur in two phases for the AN/BSY-1 Team Trainer: Phase 1 will upgrade BSY-1 trainers to the 21B64 SMMTT level, and Phase 2 will replace the obsolete mainframe with a distributive network system.

FY97 procures trainer unique hardware to upgrade the common acoustic EPM with the SMMTT Phase 2 configuration. FY97 also re-hosts selected BSY-1 functions into the SMMTT Phase 2 system.

FY98 Procures modifications to develop AN/BSY-1 SMMTT Phase 1 with ARCI Phase I functionality. Procures one trainer upgrade kit for SMMTT Phase 1 with AN/BSY-1CC/A at ARCI Phase I and CCS Mk1 C4.2V2 functionality.

FY99 Procures modifications to SMMTT Phase 2 with AN/BSY 1 ARCI Phase III functionality. Procures one trainer upgrade kit for SMMTT Phase 1 with AN/BSY-1CC/A at ARCI Phase I and CCS Mk1 C4.2V2 functionality.

DD Form 2454, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO. 173 PAGE NO 4

BUDGET ITEM JUSTIFICATION S	HEET	DATE
P-40	February 1997	
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE	
OTHER PROCUREMENT, NAVY		
BA-4 ORDNANCE SUPPORT EQUIPMENT	SUB TRAINING DEVICE MODS	LI: 5661

#### (TD012) SUBMARINE BATTLE FORCE TACTICAL TRAINING (BFTT) DEVICE MODS

The requirement for the Submarine BFTT was established by the BFTT Operational Requirement Document (ORD) No. 2U648877 of 13 Mar 1992. The Submarine BFTT device consists of a carry-on unit that will provide the CO/OOD with a display depicting the position and modes of each participant and target in the BFTT scenario. This device will interface with and interpret the BFTT scenario and make use of the Tactical Advanced Simulated Warfare Integrated Trainer (TASWIT). The Submarine BFTT program will modify TASWIT software to reflect submarine combat systems displays and the interface with BFTT. It will consist of a computer and interface equipment with software designed to interface with and interpret the BFTT system, and to receive and transmit tactical data using own ship's communications equipment. This device is in tended to exercise the communications team and the CO/OOD, but not to provide training for the remaining submarine sensor operators and Combat System Team.

FY98 The FY98 buy consists of 12 units and accompanying software.

FY99 The FY99 buys consist of one unit.

#### (TD6IN) INSTALLATION OF EQUIPMENT

Funding is for the installation of trainers, installation support for trainers, and installations in other shore facilities.

DD Form 2454, JUN 86 P-1 SHOPPING LIST CLASSIFICATION:

ITEM NO. 173 PAGE NO 5

# **UNCLASSIFIED**

	PONS SYSTEM COST ANALYSI: BIT (P-5)	Activit	y Title/N	Io. NCE SUPPOR	Series/	apon Model ' Popular Nam ARINE TRAINI E MODIFICAT	NG	C. Manufact Plant City/St VARIOUS		DATE: February 1997
	WEAPONS SYSTEM COST ELEMENTS	IDENT		FY 1996 *	TOTAL	COST IN THO	DUSAN	INDS OF DOLL	ARS	FY 1999
		CODE	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL	QTY	TOTAL COST
	SUBMARINE WARFARE (N87)									
TD002	SUBMARINE TRAINING DEVICE MODS Submarine Minor Mods			1,045 (1,045)		962 (962)		1,109 (1,109)		1,035 (1,035)
TD003	SUB COMB SYS TEAM TRAINER Device 21A43 Modifications Technical Support	А	1	1,959 (675) (1,284)	1	3,455 (2,262) (1,193)	3	6,491 (4,789) (1,702)	3	6,511 (4,521) (1,990)
TD005	SUBMARINE ACOUSTIC TRAINER Device 21B64 Modifications Specialized Skill Training Technical Support	Α	2	7,030 (4,648) (160) (2,222)	5	9,756 (8,144) (103) (1,509)	1	7,291 (5,076) (103) (2,112)	2	7,973 (5,909) (44) (2,020)
TD006	SSN COMB CONT OPER TRAINER	А	2	1,940		(0)	4	1,331	4	569
TD011	AN/BSY-1 TRAINERS AN/BSY-1 Modifications Technical Support		1	1,464 (1,282) (182)	2	4,456 (4,236) (220)	2	4,347 (4,213) (134)	2	6,259 (6,072) (187)
TD012	SUBMARINE BATTLE FORCE TACT TRNG Carry-On CO/OOD Displays			(0)		(0)	12	1,830 (1,830)	1	104 (104)
	SUBMARINE WARFARE (N87) TOTAL			13,438		18,629		22,399		22,451
TD6IN	INSTALLATION OF EQUIPMENT (NON-FMP)			281		630		626		810
	TOTALS			13,719		19,259		23,025		23,261
* Note: I	FY96 funds are provided from 87YZ LI 8089									

P-1 SHOPPING LIST

ITEM NO. 173 PAGE NO. 6

	BUDGET PRO	CUREMENT	HISTORY	' AND PLANN	IING (P	5A)			DATE Feb	ruary 1	997
	RIATION/BUDGET ACTIVITY PROCUREMENT, NAVY			P-1 ITEM NOME	NCLATU	RE/SUBHE	AD			<u> </u>	
BA-4 OR	DNANCE SUPPORT EQUIPMENT			SUBMARINE TR	RAINING [	DEVICE MO	DIFIC	CATIONS/84T	D.		
COST CODE	LINE ITEM FISCAL YEAR	CONTRACTOR	CONTRACT METHOD & TYPE	CONTRACTED BY		DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAIL.
TD003	SUB COMB SYS TEAM TRAINER MODIFICATIONS [FY96]* DEVICE 21A43 SCSTT MK2	NCCOSC SAN DIEGO	wx	NAVSEA	05/96	01/98	1	\$675,000	YES	NO	
	[FY97] CCS EPM SMMTT ACOUS SIM/STIM	NUWC NEWPORT, RI	wx	NAVSEA	03/97	01/00	1	\$2,262,000	YES	NO	
	[FY98] 21A43 SCSTT SMMTT Ph1 MK D0	NUWC NEWPORT, RI	wx	NAVSEA	01/98	04/98	1	\$617,000	YES	NO	
	CCS EPM SMMT Phase 2 MK2 B1C	NUWC NEWPORT, RI	WX	NAVSEA	03/98	02/00	1	\$3,392,000	YES	NO	
	CCS EPM SMMTT Phase 2 GSS Weps	NUWC NEWPORT, RI NUWC	WX	NAVSEA	03/98	02/00	1	\$780,000	YES	NO	
	[FY99] CCS EPM SMMTT Ph2 GSS Non-Wep	NUWC NEWPORT, RI	wx	NAVSEA	03/99	01/00	1	\$4,261,000	YES	NO	
	21A43 SCSTT SMMTT Ph1 MK2 B1C	NUWC NEWPORT RI	WX	NAVSEA	03/99	01/00	2	\$130,000	YES	NO	

REMARKS, IF ANY, CAN BE FOUND AT THE END OF PROCUREMENT HISTORY AND PLANNING SHEET

P-1 SHOPPING LIST

DD FORM 2446-1, JUL 87 ITEM NO. 173 PAGE NO. 7

NOTE: FY96 funds are provided from BA-7 87YZ LI8089

CLASSIFICIATION:

UNCLASSIFIED CLASSIFICATION:

	BUDGET PRO	DCUREMENT	HISTORY	AND PLANN	IING (P	5A)			DATE		
									Feb	ruary 1	997
_	RIATION/BUDGET ACTIVITY			P-1 ITEM NOME	NCLATU	RE/SUBHE	AD				
	PROCUREMENT, NAVY										
BA-4 OF	DNANCE SUPPORT EQUIPMENT			SUBMARINE TR	RAINING I			CATIONS/84T			
COST	LINE ITEM	CONTRACTOR	CONTRACT METHOD	CONTRACTED	AWARD	DATE OF FIRST	QTY	UNIT	SPECS AVAILABLE	SPEC REV	IF YES, WHEN
CODE	FISCAL YEAR		& TYPE	BY	DATE	DELIVERY		COST	NOW	REQ'D	AVAIL.
TD005	SUBMARINE ACOUSTIC TRAINER										
	DEVICE 21B64 MODIFICATIONS [FY96]										
	ACOUSTIC EPM PLOC	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	05/96	04/98	1	\$2,927,500	YES	NO	
	ACOUSTIC EPM Re-host Main Frame	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	05/96	04/98	1	\$1,720,500	YES	NO	
	[FY97] DEVICE 21B64 SMMTT 1 ARCI I Kit	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	03/97	04/98	3	\$725,000	YES	NO	
	ACOUSTIC EPM Rehost Acoustic	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	03/97	04/00	1	\$2,881,000	YES	NO	
	ACOUSTIC EPM ARCI I Towed Array	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	03/97	04/00	1	\$3,088,000	YES	NO	
	[FY98] ACOUSTIC EPM SMMTT2 ARCI I SIM	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	03/98	04/00	1	\$5,076,000	YES	NO	
	[FY99] ACOUSTIC EPM SMMTT2 ARCI III	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	03/99	01/01	1	\$4,405,000	YES	NO	
	ACOUSTIC EPM SMMTT2 MFAI	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	03/99	01/01	1	\$1,504,000	YES	NO	
	 (S, IF ANY, CAN BE FOUND AT THE END C								CLASSIFIC		

P-1 SHOPPING LIST

ITEM NO. 173 PAGE NO. 8 DD FORM 2446-1, JUL 87

		DATE									
									Feb	ruary 1	997
APPROP	RIATION/BUDGET ACTIVITY			P-1 ITEM NOME	NCLATU	RE/SUBHE	AD		•		
OTHER F	PROCUREMENT, NAVY										
BA-4 OR	DNANCE SUPPORT EQUIPMENT			SUBMARINE TR	AINING I	DEVICE MO	DIFIC	CATIONS/84T	D		
			CONTRACT	•		DATE OF			SPECS	SPEC	IF YES,
COST	LINE ITEM	CONTRACTOR		CONTRACTED			QTY		AVAILABLE	REV	WHEN
CODE	FISCAL YEAR		& TYPE	BY	DATE	DELIVERY		COST	NOW	REQ'D	AVAIL.
TD006	SUB COMB CONT OPER TRAINERS [FY96] CBOT EPM and Site	NUWC NEWPORT, RI	wx	NAVSEA	03/96	06/98	2	\$970,000	YES	NO	
	[FY98] CBOT CCS MK2 D0 B1C EPM and Site [FY99] CBOT CCS MK2 LINK 16 EPM and Site	NUWC NEWPORT, RI NUWC	wx wx	NAVSEA NAVSEA	03/98	03/99	4	\$332,750 \$142,250	YES YES	NO NO	
TD011	DEVICE AN/BSY-1 TRAINER AN/BSY-1 MODIFICATION	NEWPORT, RI									
	[FY96] BSY1/Acous EPM 21B SMMTT Ph1 [FY97]	NUWC NEWPORT, RI	SS/AF Opt	NAVSEA	05/96	04/98	1	\$1,282,000	YES	NO	
	BSY1/Acous EPM SMMTT Ph2 h/w	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	03/97	04/98	1	\$504,000	YES	NO	
	BSY1/Acous EPM Re-host BSY1	LORAL MANASSAS, VA	SS/AF Opt	NAVSEA	03/97	04/00	1	\$3,732,000	YES	NO	

REMARKS, IF ANY, CAN BE FOUND AT THE END OF PROCUREMENT HISTORY AND PLANNING SHEET

P-1 SHOPPING LIST

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CLASSIFICIATION:

	DATE										
									Feb	ruary 1	997
APPROPI	RIATION/BUDGET ACTIVITY			P-1 ITEM NOME	NCLATU	RE/SUBHE	AD				
OTHER P	PROCUREMENT, NAVY										
BA-4 OR	DNANCE SUPPORT EQUIPMENT			SUBMARINE TR	AINING [	DEVICE MO	DIFIC	CATIONS/84T	D		
			CONTRACT			DATE OF			SPECS	SPEC	IF YES,
COST	LINE ITEM	CONTRACTOR		CONTRACTED			QTY		AVAILABLE		WHEN
CODE	FISCAL YEAR		& TYPE	BY	DATE	DELIVERY		COST	NOW	REQ'D	AVAIL.
	[FY98]										
	BSY1/Acous EPM SMMTT1 ARCI I	LORAL	SS/AF Opt	NAVSEA	03/98	11/99	1	\$2,776,000	YES	NO	
		MANASSAS, VA	•								
	BSY-1 TT SMMTT1 ARCI I Kit	LORAL	SS/AF Opt	NAVSEA	03/98	01/00	1	\$1,437,000	YES	NO	
		MANASSAS, VA	_								
	[FY99]	1.00.41	00/450 /	1111/054	00/00	00/00		<b>4.</b> 4 <b>7</b> 0 000	\/F0	NO	
	BSY-1 TT SMMTT1 ARCI I KIT	LORAL	SS/AF Opt	NAVSEA	03/99	06/00	1	\$1,473,000	YES	NO	
		MANASSAS, VA	I								
	BSY1/Acous EPM SMMTT2 ARCI III	LORAL	SS/AF Opt	NAVSEA	03/99	08/01	1	\$4,599,000	YES	NO	
		MANASSAS, VA	SS/AF Opt	NAVSEA	03/99	08/01	'	\$4,599,000	TES	NO	
		I									
TD012	SUBMARINE BATTLE FORCE TAC TRN										
	[FY98]										
	BFTT DEVICE MODS	TBD	C/FFP	NAWCTSD	02/98	02/99	12	\$152,500	NO	NO	
								, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SPEC Avai		
	[FY99]									, -, -   	
	BFTT DEVICE MODS	TBD	C/FFP	NAWCTSD	02/99	02/00	1	\$104,000	NO	NO	
	BITT BEVICE MODO	155	0/111	14/1/0105	02/00	02/00		φ104,000	140	110	

REMARKS, IF ANY, CAN BE FOUND AT THE END OF PROCUREMENT HISTORY AND PLANNING SHEET P-1 SHOPPING LIST

CLASSIFICIATION:

DD FORM 2446-1, JUL 87 ITEM NO. 173 PAC

173 PAGE NO. 10 UNCLASSIFIED

BUDGET PROCUREMENT HISTORY	( AND PLANNING (P5A)	DATE February 1997
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE/SUBHEAD	
OTHER PROCUREMENT, NAVY		
BA-4 ORDNANCE SUPPORT EQUIPMENT	SUBMARINE TRAINING DEVICE MODIFICATIONS/84T	'D

### (TD003) SUBMARINE COMBAT SYSTEMS TRAINER (Device 21A43)

Original contract awarded to RAYTHEON for CCS MK 2 upgrade in September 1988. ECP 2 awarded 02/91, ECP 3 awarded 03/90, and ECP 6 awarded 04/92. ECP 7 is to be contracted by NUWC Newport.

#### (TD005) SUBMARINE ACOUSTIC TRAINER (Device 21B64B/C/D)

Device 21B64D contract awarded to IBM in 07/89. Device 21B64E ECP awarded 11/90. FY92 includes the ancilliary equipment for all SSN sites.

Device 21B64 ECP 7001 awarded 3/94. Device 21B64E SMMTT awarded 4/95.

#### (TD006) SSN COMBAT CONTROL OPERATOR TRAINER, Common Basic Operator Trainer (CBOT)

ECP 2 awarded 02/91, ECP 3 awarded 03/90, and ECP 6 awarded 04/92. CBOT awarded 3/96.

#### (TD011) AN/BSY-1

Original contract awarded to IBM in 02/87. ECP 116/134 awarded 12/91. ECI 003/008 awarded 06/92. ECI 010 awarded 03/93. SMMTT awarded 4/95.

#### (TD0012) SUBMARINE BATTLE FORCE TACTICAL TRAINING (BFTT) DEVICE MODS

The requirement for the Submarine BFTT was established by the BFTT Operational Requirement Document (ORD) No. 2U648877 of 13 Mar 1992.

P-1 SHOPPING LIST

CLASSIFICIATION:

DD FORM 2446-1, JUL 87 ITEM NO. 173 PAGE NO. 11

#### Exhibit P-3a, Individual Modification

Classification: UNCLASSIFIED LI: 5661 Date: February 1997

# MODELS OF SYSTEMS AFFECTE 21A43TYPE MODIFICATION: UPGRADE MODIFICATION TITLE: TD003 Combat System Team Trainer

**DESCRIPTION/JUSTIFICATI** (Modifications include the procurement of modifications to support tactical improvements to all 21A43

Submarine Combat System Team Trainers (SCSTTs) and the Land Based Test Facility (LBTF). Other modifications are made as required by the Submarine Group (STTWG), and Submarine Multi Mission Team Trainer (SMMTT) modifications.

All installations are at shore-based sites; funding is budgeted to allow long-lead planning, site surveys, and preparation.

#### **DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Yrs		PY	<b>/-1</b>	Р	Υ	С	Υ	B'	Y1	В	Y2	BY	2+1	BY	2+2	BY	2+3	BY	2+4	Т	С	To	tal
			FY	95*	FY	96*	FY	97	FY	′98	FY	′99	FY	′00	FY	′01	FY	′02	FY	′03				
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																								
PROC																								
Inst Kit NR																								
A Kit																								
Comp A																								
Comp B																								
Comp C																								
Eqpt NR																								
Eqpt	15	4.0	1	3.5	1	2.0	1	3.5	3	6.5	3	6.5	7	8.1	6	7.5	3	7.0	3	5.2			43	53.7
Eqpt A																								
Eqpt B																								
ECOs																								
Data																								
Training Eq																								
SE																								
Other																								
Other																								
Other																								
ICS																								
Install Cost					15	0.1	0	0.1	2	0.1	1	0.2	6	0.6	2	0.5	7	0.6	4	0.3	6		43	2.6
Total Proc	15	4.0	1	3.5	1	2.1	1	3.5	3	6.6	3	6.8	7	8.7	6	8.0	3	7.6	3	5.5	0	0.0	43	56.3

P-1 Shipping List - Item No. 173

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\*NOTE: FY96 & Prior funds are provided from 87YZ LI8089

(Exhibit P-3a, page 1 of 8)

NOTE: The total program quantity reflects inventory objectives for this item.

Classification: UNCLASSIFIED

Exhibit P-3a, Individual Modification

**UNCLASSIFIED** Classification: LI: 5661 Date: February 1997

MODELS OF SYSTEMS AFFECT 21A43 MODIFICATION TITLE: TD003 Combat System Team Trainer

INSTALLATION INFORMATION:

**METHOD OF IMPLEMENTATI(** Navy Field Activity Teams with Prime Contractor Support.

ADMINISTRATIVE LEADTIME: Months
CONTRACT DATES: Current Year: 03/97
DELIVERY DATE: Current Year: 01/00 PRODUCTION LEADTIME: Months Budget Year 1: 01/98 Budget Year 1: 04/98 Budget Year 2: 03/99
Budget Year 2: 01/00

#### (\$ in Millions)

Cost:				<b>′-1</b>	Р	Υ	С	Υ	B,	Y1	B,	Y2	BY	2+1	BY	2+2	BY	2+3	BY	2+4	Т	С	То	tal
			FY	95*	FY96*		FY97		FY98		FY99		FY00		FY01		FY02		FY	<b>03</b> 1	Го Со	mplet	te	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
(FY96- 1 kits)					15	0.07	AP	0.0	2	0.5													17	0.6
(FY97- 1 kits)							AP	0.0	AP	0.0	AP	0.6	1	0.0									1	0.7
(FY98- 3 kits)									1	0.4	AP	0.1	2	0.0									3	0.5
(FY99- 3 kits)											AP	0.1	3	0.3									3	0.4
(FY00- 7 kits)													AP	0.2	2	0.4	5	0.6					7	1.3
(FY01- 6 kits)															AP	0.0	2	0.0	4	0.3	0	0.0	6	0.3
(FY02- 3 kits)																	AP	0.0	AP	0.0	3	0.0	3	0.0
(FY03- 3 kits)																			AP	0.0	3	0.0	3	0.0
TOTAL			0	0.0	15	0.1	0	0.1	3	0.9	0	0.8	6	0.6	2	0.5	7	0.6	4	0.3	6	0.0	43	3.9

#### Installation Schedule

	PY		С	Υ			B,	Y1			В	Y2		E	3Y:	2+	1	E	3Y:	2+	2	В	Y2	2+3	3	E	3Y	2+	4	TC	Total
			FΥ	97	•		FΥ	98	}		FΥ	99	)		FΥ	00	)		FΥ	01			FΥ	02			FΥ	03	;		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	15					2		1						1	5				2				7				4			6	43
Out	15						2		1						1	5				2				7				4		6	43

P-1 Shipping List - Item No. 173

Page No. 13 Exhibit P-3a, Individual Modification (Exhibit P-3a, page 2 of 8)

Classification: UNCLASSIFIED LI: 5661 Date February 1997

MODELS OF SYSTEMS AFFECTE 21B64 TYPE MODIFICATION: <u>UPGRADES</u> MODIFICATION TITLE: <u>TD005 Acoustic System Team Trainer</u>

**DESCRIPTION/JUSTIFICATION:** These modifications will upgrade trainers to the 21B64B/C/D/E (V)3/(V)4 configurations and Engineering for an Engineering Change Proposal (ECP) Development Model (EDM) to support the 21B64E (V)3. Provisions are also made to the 21B64 trainers to include block changes as a result of tactical AN/BQQ-5E and SMMTT modif All installations are at shore-based sites; funding is budgeted to allow long-lead planning, site surveys, and preparation.

#### **DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior	Yrs	P١	<b>/-1</b>	P	Υ	С		B'	Y1	B'	Y2	BY	2+1	BY	2+2	BY	2+3	BY	2+4	Т	С	To	otal
			FY	95*	FY	96*	FY	97	FY	'98	FY	'99	FY	00	F١	<b>/</b> 01	FY	02	FY	03				
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																								
PROC																								
Inst Kit NR																								
A Kit																								
Comp A																								
Comp B																								
Comp C																								
Eqpt NR																								
Eqpt			1	8.2	2	6.7	5	9.8	1	7.3	2	8.0	5	8.5	10	13.1	4	4.4	4	7.1			34	72.9
Eqpt A																								
Eqpt B																								
ECOs																								
Data																								
Training Eq																								
SE																								
Other																								
Other																								
Other																								
ICS																								
Install Cost					0	0.1	1	0.4	4	0.1	1	0.2	4	0.3	2	0.5	11	0.6	5	0.3	6		34	2.5
Total Proc	0	0.0	1	8.2	2	6.8	5	10.1	1	7.4	2	8.2	5	8.7	10	13.6	4	5.0	4	7.4	0	0.0	34	75.4

P-1 Shipping List - Item No. 173

Page No. 14

Exhibit P-3a, Individual Modification

(Exhibit P-3a, page 3 of 8)

NOTE: The total program quantity reflects inventory objectives for this item.

Classification: UNCLASSIFIED LI: 5661 Date: February 1997

MODELS OF SYSTEMS AFFE21BM4DIFICATION TITLE: TD005 Acoustic System Team Trainer

INSTALLATION INFORM Navy Field Activity Teams with Prime Contractor Support.

**METHOD OF IMPLEMENTA** Navy Field Activity Teams with Prime Contractor Support.

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATESCurrent Year: 03/97
DELIVERY DATE: Current Year: 04/98

Budget Year 1: 03/98
Budget Year 1: 03/98
Budget Year 1: 03/90
Budget Year 2: 01/01

## (\$ in Millions)

Cost:	Prio	r Yrs	PY	<b>/-1</b>	Р	Υ	С	Υ	B'	Y1	B,	Y2	BY	2+1	BY	2+2	BY	2+3	BY		-	С		tal
			FY	95	FY	96	FY	97	FY	98	FY	99	FY	00	FY	<b>'01</b>	FY	02	FY	′03 т	о Со	mple	te	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
(FY96- 2 kits)					AP	0.1	1	0.2	2	0.0													3	0.3
(FY97- 5 kits)							AP	0.2	2	0.1	1	0.2	2	0.0									5	0.5
(FY98- 1 kits)									AP	0.0	AP	0.0	1	0.0									1	0.0
(FY99- 2 kits)											AP	0.0	AP	0.0	2	0.3							2	0.4
(FY00- 5 kits)													1	0.2	AP	0.1	4	0.3					5	0.6
(FY01- 10 kits)															AP	0.1	7	0.3	3	0.1			10	0.5
(FY02- 4 kits)																	AP	0.0	2	0.2	2		4	0.2
(FY03- 4 kits)																			AP	0.0	4		4	0.0
TOTAL			0	0.0	0	0.1	1	0.4	4	0.1	1	0.2	4	0.3	2	0.5	11	0.6	5	0.3	6	0.0	34	2.5

#### **Installation Schedule**

	PY		С	Υ			B'	Υ1			B,	Y 2		Е	3Y:	2+	1	Е	3 Y	2+	2 E	3 Y	2+	3 (	etc	Е	3Y:	2+	4	TC	Total
			FΥ	97	,		FΥ	'98	}		FΥ	99	)		FΥ	00	)		FΥ	01			FΥ	02	2		FΥ	03	3		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	1						4			1					4			2				9	2			5			6	34
Out	0		1						4			1					4			2				9	2			5		6	34

P-1 Shipping List - Item No. 173

Page No. 15 Exhibit P-3a, Individual Modification (Exhibit P-3a, page 4 of 8)

#### **Exhibit P-3a, Individual Modification**

Classification: UNCLASSIFIED LI: 5661 Date: February 1997

MODELS OF SYSTEMS AFFECTE CCOT TYPE MODIFICATIC UPGRADE MODIFICATION TITLE: TD006 Combat Control Operator Trainer

**DESCRIPTION/JUSTIFICATION**: The purpose of these trainers is to provide submarine force operator training in support of FCS MK117 and Mk1. The CBOT will support CCS MK1/Mk2. All installations are at shore-based sites; funding is budgeted to allow long-lead planning, site surveys, and preparation.

#### **DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior	Yrs	P١	<b>/-1</b>	Р	Υ	С	Υ	B'	Y1	B,	Y2	BY	2+1	BY	2+2	BY	2+3	BY	2+4	Т	С	То	tal
			FY	95*	FY	96*	FY	97	FY	'98	FY	99	FY	′00	FY	'01	FY	02	FY	′03				
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																								
PROC																								
Inst Kit NR																								
A Kit																								
Comp A																								
Comp B																								
Comp C																								
Eqpt NR																								
Eqpt	1	0.3	0	0.0	2	1.9	0	0.0	4	1.3	4	0.6	4	0.6	4	0.6	0	0.0	0	0.0			19	5.5
Eqpt A																								
Eqpt B																								
ECOs																								
Data																								
Training Eq																								
SE																								
Other																								
Other																								
Other																								
ICS																								
Install Cost	0	0.0	0	0.0	1	0.1	0	0.2	2	0.0	4	0.1	0	0.1	4	0.0	8	0.0	0	0.0			19	0.4
Total Proc	1	0.3	0	0.0	2	2.0	0	0.2	4	1.4	4	0.7	4	0.7	4	0.6	0	0.0	0	0.0	0	0.0	19	5.9

P-1 Shipping List - Item No. 173

Page No. 16

**Exhibit P-3a, Individual Modification** 

(Exhibit P-3a, page 5 of 8)

NOTE: The total program quantity reflects inventory objectives for this item.

Classification: UNCLASSIFIED LI: 5661 Date: February 1997

MODELS OF SYSTEMS AFFE(CCOT MODIFICATION TITLE: TD006 Combat Control Operator Trainer

**INSTALLATION INFORMATION:** 

METHOD OF IMPLEMENTA' Navy Field Activity Teams with Prime Contractor Support.

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES urrent Year: N/A Budget Year 1: 03/98 Budget Year 2: 03/99 Budget Year 2: 10/00

#### (\$ in Millions)

Cost:	Pric	r Yr	s P	Y-1	Р	Υ	С	Υ	B,	Y1	B,	Y2	BY	2+1	BY	2+2	BY	2+3	BY	2+4	Т	С	То	tal
			FY	95	FY	96	FY	97	FY	98	FY	99	FY	00	FY	01	FY	02	FY	<b>0</b> 3 1	о Со	mple	te	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY96- 2 kit	s)				1	0.1	AP	0.1	2	0.0													3	0.2
(FY97- 0 kit	s)																						0	0.0
FY98- 4 kit	s)								AP	0.0	4	0.0											4	0.0
FY99- 4 kit	s)										AP	0.1	AP	0.0	4	0.0							4	0.1
FY00- 4 kit	s)												AP	0.0	AP	0.0	4	0.0					4	0.0
FY01- 4 kit	s)														AP	0.0	4	0.0					4	0.0
FY02- 0 kit	s)																						0	0.0
FY03- 0 kit	s)																						0	0.0
TOTAL			0	0.0	1	0.1	0	0.1	2	0.0	4	0.1	0	0.0	4	0.0	8	0.0	0	0.0	0	0.0	19	0.3

#### **Installation Schedule**

	PY		С	Υ			B'	Υ1			B'	Υ2		E	3Y	2+	1	E	3Y	2+	2	3 Y	2+	3 (	etc	E	3Y	2+	4	TC	Total
			FΥ	97	,		FΥ	'98	3		FΥ	<b>'9</b> 9	)		FΥ	00	)		FΥ	01			FΥ	02	2		FΥ	03	3		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	1						2				4							4					8							0	19
Out	1							2				4								4				8						0	19

P-1 Shipping List - Item No. 173

Page No. 17 Exhibit P-3a, Individual Modification (Exhibit P-3a, page 6 of 8)

#### Exhibit P-3a, Individual Modification

Classification: UNCLASSIFIED LI: 5661 Date: February 1997

MODELS OF SYSTEMS AFFECTE AN/BSY-1 Team TrainEYSPE MODIFICATION: UPGRADESMODIFICATION TITLE: TD011 AN/BSY-1 CC/A Team 1

**DESCRIPTION/JUSTIFICATION** The modifications provide upgrades to match the tactical systems for the trainers and Acoustic and Combat Control Engineering Procurement Models (EPM) for the AN/BSY-1 trainers. All installations are at shore-based sites; funding is budgeted to allow long-lead planning, site surveys, and preparation.

#### **DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

FINANCIAL PLAN: (TOA, \$ in Millions)

Prior	Yrs	P١	<b>/-1</b>	Р	Υ	С	Y	B'	Y1	B,	Y2	BY	2+1	BY	2+2	BY	2+3	BY	2+4	Т	С	T	otal
		FY	95*	FY	96*	FY	97	FY	98	FY	99	FY	00	FY	′01	FY	′02	FY	′03				
Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
3	5.0	1	2.8	1	1.5	2	4.5	2	4.3	2	6.3	2	6.0	3	6.6	0	0.3	0	0.3			16	37.5
		2	0.2	1	0.0	1	0.0	1	0.4	0	0.4	5	0.2	1	0.1	4	0.0	0	0.0	1		16	1.5
3	5.0	1	2.9	1	1.5	2	4.5	2	4.7	2	6.7	2	6.3	3	6.7	0	0.3	0	0.3	0	0.0	16	39.0
	Qty 3	3 5.0	FY   Qty   \$ Qty	FY95* Qty \$ Qty \$  3 5.0 1 2.8	FY95* FY Qty \$ Qty \$ Qty  3 5.0 1 2.8 1	FY95* FY96*  Qty \$ Qty \$ Qty \$  3 5.0 1 2.8 1 1.5	FY95* FY96* FY Qty \$ Qty \$ Qty \$ Qty  3 5.0 1 2.8 1 1.5 2	FY95*   FY96*   FY97	FY95*   FY96*   FY97   FY   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty   \$   Qty	FY95*   FY96*   FY97   FY98   Qty   \$   Qty	FY95*   FY96*   FY97   FY98   FY99   FY98	Typ5*   Fy96*   Fy97   Fy98   Fy99	Typ5*   Fy96*   Fy97   Fy98   Fy99	FY95*   FY96*   FY97   FY98   FY99   FY00	FY95*   FY96*   FY97   FY98   FY99   FY00	FY95*   FY96*   FY97   FY98   FY99   FY00   FY01	FY95*   FY96*   FY97   FY98   FY99   FY00   FY01	FY95*   FY96*   FY97   FY98   FY99   FY00   FY01   FY02	FY95*   FY96*   FY97   FY98   FY99   FY00   FY01   FY02   FY04   FY05	FY95*   FY96*   FY97   FY98   FY90   FY01   FY02   FY03	FY95*   FY96*   FY97   FY98   FY99   FY00   FY01   FY02   FY03	FY95	FY95

P-1 Shipping List - Item No. 173

Page No. 18

Exhibit P-3a, Individual Modification

(Exhibit P-3a, page 7 of 8)

NOTE: The total program quantity reflects inventory objectives for this item.

Classification: UNCLASSIFIED LI: 5661 Date: February 1997

MODELS OF SYSTEMS AFFE AN/BSY-1 TEAM TRADIDERCSATION TITLE: TD011 AN/BSY-1 CC/A Team Trainer

**INSTALLATION INFORMATION:** 

**METHOD OF IMPLEMENTA** Navy Field Activity Teams with Prime Contractor Support.

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES:Current Year: 03/97
DELIVERY DATE: Current Year: 04/98
Budget Year 1: 03/98
Budget Year 1: 11/99
Budget Year 2: 06/00

## (\$ in Millions)

Cost:	Prio	r Yrs	PY	<b>′-1</b>	Р	Υ	С	Υ	B'	Y1	B,	Y2	BY	2+1	BY	2+2	BY	2+3	BY	2+4	Т	С	То	tal
			FY	95	FY	96	FY	97	FY	98	FY	99	FY	00	FY	01	FY	02	FY	03 т	о Со	mple	te	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
(FY96- 1 kits)					3	0.0	1	0.0	1	0.0													5	0.1
(FY97- 2 kits)							AP	0.0	AP	0.0	AP	0.0	2	0.0									2	0.1
(FY98- 2 kits)									AP	0.4	AP	0.2	2	0.1									2	0.6
(FY99- 2 kits)											AP	0.1	1	0.1	1	0.1							2	0.3
(FY00- 2 kits)													AP	0.0	AP	0.0	2	0.0					2	0.0
(FY01- 3 kits)															AP	0.0	2	0.0	AP	0.0	1	0	3	0.1
(FY02- 0 kits)																							0	0.0
(FY03- 0 kits)																							0	0.0
TOTAL			0	0.0	3	0.0	1	0.0	1	0.4	0	0.2	5	0.2	1	0.1	4	0.0	0	0.0	1	0.0	16	1.2

## **Installation Schedule**

	PY		С	Υ			B,	Υ1			В	<b>Y</b> 2		E	3Y	2+	1	E	3Y:	2+	2	E	3 Y	2+	3	E	3 Y	2+	4	TC	Total
			FΥ	97	•		FΥ	'98	3		FΥ	99	)		FΥ	00	)		FΥ	01			FΥ	02	:		FΥ	03	}		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	3			1			2							1	3				1				3				2			0	16
Out	3				1			2								1	3			1					3			2		0	16

P-1 Shipping List - Item No. 173

Page No. 19 Exhibit P-3a, Individual Modification (Exhibit P-3a, page 8 of 8)

			BUDGET ITEI P-40	M JUSTIFICA <sup>-</sup>	TION SHEET			DATE: February 1997
	OTHER PRO	TION/BUDGE CUREMENT, nce Support E	NAVY		Industrial Dep	MENCLATURE ot Maintenanc BLI # 5665		
	1996	1997	1998	1999	2000	2001	2002	2003
QTY.								
COST MILL	6.8*	20.2	0	0	0	0	0	0

ITEM DESCRIPTION/JUSTIFICATION: This line item provides for procurement and installation of equipment for the initial outfitting of military construction projects as NAS North Island. Depot equipment for initial outfitting of Military Construction Projects:

#### MCON P-701 Controlled Industrial Facility, NAS North Island (FR001):

These projects are required as depot equipment for Military Construction Project P701, Controlled Insustrial Facility, at Naval Air Stati North Island. MCON P701, programmed for FY 96 with a Base Operational Date (BOD) of November 1997, will provide depot level repland maintenance of propulsion plant systems and components of CVNs homeported at NAS North Island. These projects are required fund the manufacture/procurement of the equipment listed for MCON P-701.

# MCON P-702 Controlled Industrial Facility, NAS North Island (FR002):

These projects are required as depot equipment for Military Construction Project P702, Controlled Industrial Facility, at Naval Air Station North Island. MCON P702, programmed for FY 97 with a BOD of April 1998, will provide depot level repair and maintenance of propulsion plant systems and components of CVNs homeported at NAS North Island. These projects are required to fund the manufacture/procurement of the equipment listed for MCON P-702.

\*\*Program transferred from BA-7 OPN BLI # 8134.

P-1 SHOPPING LIST ITEM NO. - 174 PAGE - 1 CLASSIFICATION: UNCLASSIFIED

		WEAPON	N SYSTE P-5	EMS COST ANAL	YSIS E	XHIBIT			DATE	E: February 1997
0	PPROPRIATION/BUDGET ACTIVITY ITHER PROCUREMENT, NAVY A 4: ORDNANCE SUPPORT EQUIPMENT			P-1 ITEM NON INDUSTRIAL D		TURE MAINTENANCE EC	QUIPME	ENT	SUBF	IEAD 84FR
	The state of the s			4	TOTA	L COST IN THOU	SANDS	OF DOLLARS		
	OST   ELEMENT OF COST ODE	IDENT CODE		FY 1996		FY 1997		FY 1998		FY 1999
		0002	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
FR001	MCON P-701	А								
	Plant Equipment Industrial Plant Equipment Material Handling Equipment Instrument Equipment Work Enclosures Crane, Mobile, 150 Ton			1,125 1,145 1,435 115 3,023		2,492 1,908				
FR002	MCON P-702									
	Design Engineering Support Calibration and Test Equipment Chemistry Lab Equipment Component Cleaning Equipment Plant Equipment NDT Equipment					988 4,517 3,306 360 431 5,931 262				
	TOTAL			6,843		20,195				UNCLASSIFIED

P-1 SHOPPING LIST ITEM NO. - PAGE NO. 174 2